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PROSE AND POETRY
OF THE
Live Stock Industry
of the United States.

WITH OUTLINES OF THE ORIGIN AND ANCIENT
HISTORY OF OUR LIVE STOCK
ANIMALS.

Volume I.

ISSUED IN THREE VOLUMES.

Illustrated.

PREPARED BY AUTHORITY OF THE
NATIONAL LIVE STOCK ASSOCIATION.

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L. C.

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Dedicated to the

Live Stock Men of the United States

and those engaged in

Kindred Industries.

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Introductory.

PROSE AND POETRY OF THE LIVE STOCK INDUSTRY OF THE UNITED STATES is the most comprehensive publication ever attempted in behalf of any industry of the world. It embodies a complete history of one of the most important pursuits known to man, and is the only work that covers this great subject. Books have been published upon several phases of the Live Stock Industry—notably upon that of live stock breeding—but the field was almost virgin territory when the collection of materials for the volumes of this work was begun. Thorough and conscientious search has been made through all literature relating to the Live Stock Industry, even to the remotest ages, and many original sources of information have been consulted. The result is a large amount of material, a portion of which is presented in this volume. The second and third volumes carry the subject forward until all the topics of practical importance in connection with Live Stock are systematically presented.

Owing to the vastness of the theme and its importance to mankind from the earliest times, a broad foundation has been laid upon which to build a magnificent superstructure. The history of the Live Stock Industry carries us back into the mists of antiquity—beyond the realm of written records—to the period when man began to emerge from darkness and ignorance to the glorious light whose beams in this twentieth century illumine the remotest regions of the world. In the pre-historic period, as shown in this work, our forefathers learned to tame certain of the wild animals. Among these were the dog, the sheep, the goat, the cow, and the horse; the work extending until it included all the domestic animals which, for thousands of years, have been closely associated with mankind. It is the province of this work to tell the story of the association of these animals with man—a story of surpassing interest to all thinking persons, and one that can not fail to be of permanent benefit to every reader who attentively follows its development.

The value of this publication, especially to all persons engaged in rearing or handling Live Stock, can not be estimated, and its value will be increased as time passes and the subject is better understood. A mine of information is here exploited, as surprising as it is gratifying. To the thoughtful, it opens a new field; to the ambitious, it points out a way for the attainment of ease and affluence; to the philosophical, it teaches a lesson of faith in small beginnings and the ultimate triumph of well-directed effort. The history of the Live Stock Industry is a history of the development of man, and the debt that the human race owes to the gentle animals of the farm and ranch is one that will require many centuries of kindliness to repay.

The plan of this work requires that it shall appear in three volumes, of which the first volume is now presented. From a vast historic treasury the facts have been garnered. No story ever penned excels in interest the story which may be gleaned from the pages of this history in its application to the onward march of humanity. The development which is here traced in the approach of domestic animals toward the ideal is a proof and a prophecy of a similar movement ceaselessly operating in the human family itself. These beautiful forms are the creations of the mind; for it is shown that every successful breeder of live stock must possess the creative faculty, and to the breeder, above all other men, belongs the credit for the marvelous growth of the industry in modern times and the general interest that is diffused among live stock producers. At the same time it should be said that the great meat-packing establishments have performed a mighty work in preparing the crude product for consumption and adapting it to the wants and tastes of people in the most distant countries. The history of this department of the industry which virtually originated less than forty years ago, is one of the most striking illustrations of progress in the modern world. The improved methods in breeding, handling, feeding, transportation, and marketing of live stock, as set forth in this history, give the reader new cause for congratulation that he lives in an age of enlightenment. It requires no prophetic vision to see that further advances of great importance will be made in the immediate future, and many problems that now perplex the minds of live stock men will be happily solved.

The first volume of the work is devoted to the historical unfoldment of the subject, tracing the progress of the Live Stock Industry from remote ages through the rise and fall of nations, to America, where the industry has attained its greatest growth, and to a period when the meat products of the United States are distributed in the most distant quarters of the globe. The subject is presented in systematic order, concluding in this volume with the era of the general introduction of improved breeds of live stock upon the plains, and the rapid absorption of the great ranches by the farmer and small live stock raiser.

A large amount of space has been given to the early history of live stock. Owing to the magnitude of the work and the generous size of the volumes, this was possible, and many facts are presented that could not otherwise have been given space. One of the features constantly kept in view is to present facts not generally known—to make accessible to readers and inquirers a large amount of information not readily to be obtained. In the earlier chapters of the work it is shown that the cowboy is not a modern institution; he existed and flourished five thousand years ago in Egypt and thousands of years previous to that time ancient peoples had placed the bull, the ram, and the goat in the stars as deities worthy of worship. The industry is traced from India—one of the most ancient of all civilized nations—through Assyria, Babylonia, and Palestine to the Valley of the Nile and thence to Europe and to the homes of the people of our own land. The elaborate chapters setting forth the origin of our domestic animals and their lingering wild traits can not fail to be of interest, as they open a field of great magnitude and one of which little is commonly known. The chapters upon the buffalo embody the most extensive and exhaustive treatment of the subject ever attempted by any publication up to the present time.

It is shown that Christopher Columbus was the first live stock man of America, and the part performed in the introduction of live stock to America by the Spanish conquerors is clearly set forth. The introduction of live stock to the Atlantic and Pacific coast States and Territories; the movement into the Valley of the Mississippi and the plains country, and the development of the industry in the Southwest and in the Rocky Mountain and adjacent regions, show the importance of live stock in the settlement of a new country and the subduing of the wilderness. When Columbus first visited the shores of the Western World there were no horses, no cattle, no domestic sheep, and no hogs in America. Although the horse and the cow had their origin in America, they had entirely disappeared from the land of their birth, and the native American races had perhaps reached the limit of their development without the assistance of the useful domestic animals. The introduction of live stock to America from Europe, as shown in these pages, was really their home-coming—their return to the land of their birth.

As the principal growth of the Live Stock Industry of the United States has been witnessed upon the great plains, the larger part of this volume is devoted to the theatre where immense strides have taken place during the last half-century. The leading features of life in the cow-camp and on the sheep range are treated faithfully, and important changes of the industry, from the period before the Civil War to the present time are described. The industry assumed definite form immediately after the Civil War, and the construction of railways and establishment of stock yards and packing-houses gave a permanency to the range interests which invited great investments of capital and attracted men to embark in the various departments of the industry, who gave it acknowledged standing in the financial world.

The reader who follows the history of the cattle-trail as presented in this volume will gain new courage in any difficult undertaking, for the history of the cattle-trail is a remarkable presentation of difficulties met and overcome, and the old trail-men are, many of them, to-day the leaders in States where they are yet living.

In the second volume of the work are presented articles of vital interest to live stock men, treating at length of all the principal breeds of cattle, horses, sheep, and hogs, and presenting the methods by which remarkable progress in the development of these animals has been accomplished in recent times. The origin and growth of the packing-house industry; the marvels of live stock transportation by railway as compared with the primitive methods, and the marketing of live stock in all its departments, receive the attention their importance warrants. The articles upon the development of the horse in modern times cover a most interesting subject and are of lasting and practical value. The great land problem, looking towards the use or reclamation of hundreds of millions of acres of arid and semi-arid lands belonging to the National Government, in the West, now being seriously considered by many of the most thoughtful minds of the Nation, is intimately related to the Live Stock Industry, and the treatment of this subject in its various phases is one of the important contributions of the work. The dairy interest; the live stock auction-ring; the great live stock shows; Mexico, South America, and Canada as live stock countries; the great organizations of live stock men and the effects of these organizations upon the industry and upon legislation, are among the subjects intelligently presented in the second volume. The third and last volume of the work is devoted in a great measure to the proper care and foods of domestic animals, their diseases, and the most approved methods of treating diseases of animals.

It may here be truthfully remarked that the leading men of antiquity were in many instances live stock men. Many of the cities and towns of ancient times were founded by them, and the live stock man has been one of the distinctive agencies in the promotion of civilization. This work gives to the live stock man a status—a place—a definite position in the growth of society that never before has been so clearly defined. The live stock raiser has always been a producer, and the very nature of his calling has made him fearless, strong, and self-reliant, and has developed within him the qualities of leadership. Hence in the ancient nations, the men owning the largest herds were the rulers, and at the present time in the United States leading live stock men are found occupying positions of highest responsibility in county, city, State, or National Government.

In the course of preliminary plans for this monumental work, inquiries were made of leading librarians of the United States for information concerning the history and progress of the Live Stock Industry in this country. The reply in almost every instance was that the libraries contained practically nothing of permanent value on the subject. The men who made the industry in America what it is to-day are almost unknown to the world, and the only extensive records of lasting value relating to the subject are in possession of the National Live Stock Association at its headquarters in Denver, Colorado, in the collections at Washington, or at the headquarters of the great breeding associations. In the libraries of the towns and cities are to be found interesting sketches of men who have contributed to the progress of science, religion, war, or literature; but it is rare indeed that there is mentioned in these books the name of any of the leaders of the great Live Stock Industry.

In order to preserve the memories of the fathers of the industry and to present to thousands of readers the ideas of younger men who have made a success in the live stock business, personal sketches, reminiscences, and methods of representative live stock men appear in this work. Fortunately, it has been possible to secure reminiscences and experiences from pioneers who yet linger upon the scene of their active career, and public-spirited younger men have also assisted in this undertaking. The aid and support of these men, living in many parts of the country, have made it possible to bring this work through to a successful issue. To these men the National Live Stock Historical Association hereby presents its sincere thanks. The biographies are in all instances written with the object of conveying a message of permanent value to every reader, and as they come from successful, intelligent, thinking men, and are sent forth with the noblest incentive to higher effort, it is earnestly believed that these biographies will have a lasting value and will be read long after the present generation has passed on. The world is moved by thought, and every genuine effort to advance the happiness and well-being of society is a contribution to the final glorification of the human race.

Education is the greatest need of the world, and this History is a forward step in the desired direction. It will be found one of the most welcome visitors at the fireside and in the home-circle, and the lessons here inculcated cannot fail to assist in a marked degree in moulding the thought and the character of the younger generation, in whose hands the destinies of our country will be placed.

Attention is here called to the fact that the work is divided into sections instead of chapters, and the sections appear in chronological order. Each section is independent, and treats of a specific subject. A classified index of the entire work will be found at the close of the third volume.

In the course of an address delivered before the National Live Stock Association, under whose auspices this work is issued, Hon. John W. Springer said, referring to this publication: "It will certainly interest every stockman, big and little, throughout the Nation, as well as those engaged in our industry even beyond the seas." The cordial reception already accorded the work by live stock men is evidence that the speaker was actuated by the true spirit of prophecy. Since the earliest inception of the enterprise Mr. Springer has been its earnest friend and supporter; and in behalf of all persons connected with the undertaking, thanks are hereby tendered him for his inspiring utterances and encouraging attitude. Acknowledgments are due to the National Wool Growers' Association for its endorsement of the work, and also to the veteran publisher, Franklin Hudson, whose long acquaintance with the liberal spirit that is a characteristic of live stock men, led him to undertake the responsibility of a great publication involving large expense and an immense amount of research. The historical sections of this volume were written by Jerome C. Smiley, of Denver, Colorado, an accomplished historical writer, who has gained a permanent place in literature by his extensive knowledge of history and his happy facility of expression.

With these brief remarks, the History of the Live Stock Industry of the United States is placed in the hands of its friends.

James W. Freeman.

In the Night-Time of Human History.

Domestication of Wild Animals.—Antiquity of this Revolution in the Affairs of Primitive Man.—The Aryan Pastoral Peoples.—Their Migration to Europe, and Their Influence upon Its Aborigines and upon the Advancement of Mankind.—Origin of Familiar Words. —Origin of Commerce.—Birth of Religious Conceptions.—Domestic Animals in the Constellations, and in Greek and Roman Mythologies.

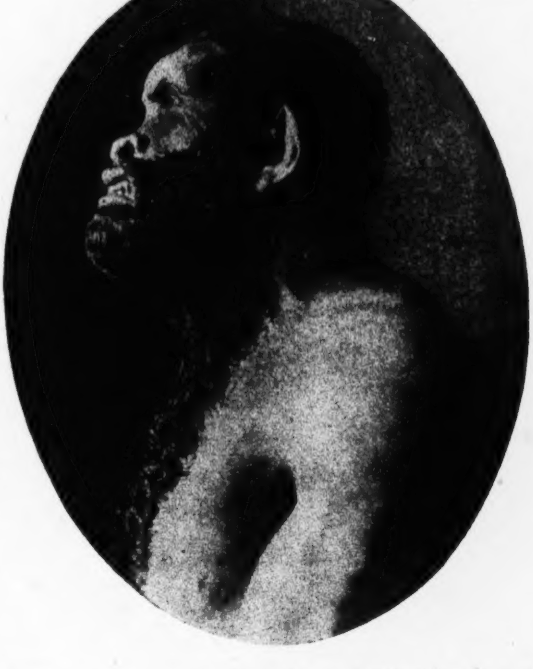
In some remote and dateless day a wild and savage being, walking erect, and who shared in the dominion that already had been partly established by his race over "every living thing that moveth upon the earth," found and took alive, while roaming forth in search of supplies for his ever-yawning larder, a whining little creature but lately born into the world-wilderness, of parents only a degree wilder than the hairy giant into whose clutches it had fallen. Moved by an impulse strange to him, and departing from the long-established practice of his kind and time, the captor did not slay his helpless prisoner to furnish a meal for the day, but carried it to the cavern in which he, his robust helpmeet, and their progeny dwelt. Perhaps times were good in that season and food more plentiful than usual; and perhaps, furthermore, our wild hunter and his household dependents had moved a notch above the mental level of primitive society around them; for his family shared his compassion for the baby animal thus brought into their squalid abode, and joined him in a resolution not to eat it. They nursed and protected and fondled it in their rude way, and as the months went by and it passed through the period of its youth they were surprised by its manifestations of affection for them; by its indisposition to snarl and snap and bite at every opportunity, as all of its kindred were well known to do; and by its disinclination to join its relatives in their precarious roving life in the forests and upon the plains. This behavior of the remarkable animal that had become a member of his domestic establishment puzzled the slowly developing mind of our ancient friend when he first observed it, but as he studied it in his sluggish fashion, the thought that he might make this creature and others of its kind useful to him in his struggle for existence, dimly dawned within his savage brain.

As the chances of the chase enabled him to do so, he brought to his cave-home other young of the same species; and he imparted to his neighbors the results of his experience with the first, and told them of the plan he had evolved to make the creatures he was rearing his helpers and servants in the hard battle of life he had to fight. We may imagine the incredulity with which this bold scheme was received by primeval society; but nevertheless it found some adherents, who followed the example of its promoter and participated in the beginning of this early revolution in the affairs of primitive man. Thus one of the wild creatures of the earth was domesticated—the dog, the oldest and most devoted of man's four-footed friends and servitors, became attached to his person and to his fortunes for all time. As the years swept by, this noble animal learned to render his master most effective assistance in the chase, and, developing the faculty of resenting the approach or presence of intruders, he established himself as the guardian of the rude abode that was the cheerless home of both.

What primitive man had thus done with one wild creature he could do with others; but it took him a long time to discern this and to carry it into effect. The dog appears to have been his only domesticated animal through nearly the whole of the hazardous period in which hunting was his principal occupation and dependence, and fighting his brethren a very frequent diversion. But at last, profiting by his enlarged experience, he rose to his opportunities for a better mode of living, and gradually acquired the sheep, the goat, the cow, the horse, and some of the fowls of the air, by the same methods that had made the faithful dog his willing and useful companion and subject; and this great revolution in his affairs opened to him the higher, more peaceful and plentiful pastoral life, in which so many of the changes in character, habits, manners, and customs that eventually made him a civilized being were wrought.

While we are, of course, without actual knowledge of the circumstances under which primitive man subjugated wild animals and turned them to his own use, comfort, convenience and profit, we may accept such speculations as the foregoing as most probably representing something close to what actually happened. With such assistance from our imagination we can see fairly well how it could have been, and probably was, done; but imagination can give no aid to an attempt to determine when it was done. Concerning the latter, all that can be said with prudence is that in some period of far-off antiquity—in the night-time of human history—this great revolution that placed man so far above the other creatures of the earth came to pass. There is no record of its origin and progress. Inscriptions and depictions throwing light upon man's life and surroundings nearly seven thousand years ago reveal also our familiar domestic animals, unchanged in general character and appearance, holding the same relations to him that they do to civilized humanity of modern times. The domestication of animals is one of the unquestionable evidences of the immense antiquity of man as an intelligent and reasoning being, to say nothing of the countless ages through which he existed before he developed the intellectual ability to make servants of some of his contemporary four-footed wild creatures.

The primitive individual, whatever and whoever and wherever he was, who first conceived this method of bettering the condition of himself and of his fellow-men, and who applied his ingenuity to giving it practical effect, was one of the great benefactors of the human race—perhaps the greatest; and, moreover, he was the founder of the live-stock industry, which, as probability and reason point out, was the first productive and upbuilding occupation of mankind.



Pre-historic European Cave Man. Restoration from a semi-fossilized skeleton.

(*From an engraving in the "Open-Court" Magazine, March,* 1904.)

We may with confidence accept as true that the industry originated and was developed in Asia, the cradle-land of reasoning humanity and of civilization; and that it was introduced into Europe by the Aryan peoples from Asia at a time when the European races were in that stage of evolution designated as the Neolithic Age—millenniums before the dawn of European history. Indeed, it is more than probable that the transition of the native races of Europe from the Neolithic to the Bronze Age was due to the incoming of the Aryans, for during the change domestic animals were not unknown there, but they did not attain any great dispersion until after bronze implements had rather generally displaced those of stone. In remains of settlements evidently founded and occupied by people who inhabited Europe before the Aryans came and before the introduction of bronze, all the bones of animals found are those of wild species. This indicates that the principal part of the food of these people was obtained by hunting. After the introduction of bronze, however, exactly the reverse is the case. In these later remains the bones of domestic animals become common, while those of wild ones are comparatively rare—circumstances that show that a great revolution had taken place in the habits of the native people. Moreover, it is probable that these people who inhabited Europe before the Aryan invasion would afterward remain together in clans or communities, surrounded by the invader population, for a considerable length of time before they had been either exterminated or absorbed by the more advanced race; and would, also, adopt such of the arts and customs of the Aryans as were within their reach. The increased population and the greater utilization of the land that followed the Aryan invasion would make it more difficult to obtain food by hunting, and would therefore compel the aborigines to adopt domesticated animals as a means of support, which they would have little difficulty in doing, as they would be able to obtain a stock to start from, either by raids on their new neighbors' herds, or perhaps by barter. But the manufacture of bronze implements (of which they were theretofore ignorant), being a much more complicated affair than the rearing of cattle, would take a much longer time to acquire. We may then regard the domestication of animals to the extent that it was practiced by the Aryans in their Asiatic home as a new thing in Europe and as introduced by them.

The *débris* accumulated upon the sites of ancient lake-villages in Switzerland and Italy has revealed unmistakable evidence of the soundness of the theories outlined in the foregoing and of the gradual introduction of domestic animals among the rude people who lived in these communities. Some of these village sites had been occupied continuously by many generations, as the rubbish and offal were found deposited on the lake bottom in consecutive order, like geological strata, thus affording an unerring proof of the relative antiquity of the accumulations. Research made it clear that many of these lake villages had been founded in the Age of Stone, and had passed from that into the Age of Bronze, and some even into the Age of Iron. The people of the earlier period were in transition from the hunting to the pastoral stage, and lived principally upon the results of the chase; the bones of the stag and of the wild boar being very plentiful in the *débris*, while those of the dog, the ox, and the sheep are rare. Of these, the dog is more in evidence, and this is easily accounted for upon the reasonable presumption that probably he would have been the first of the Aryan's animals which the natives would obtain, and the one to which they would first personally become attached. Agriculture and the cereals appear to have been unknown in the earlier stage, though stores of acorns and hazelnuts that had been roasted for food were found. By degrees the bones of wild animals became scarce, and those of the dog, ox, and sheep very common, showing that the pastoral stage had been reached. Subsequent deposits containing bones of the goat, pig, and horse prove that these creatures had been added to the stock of domestic animals—the domesticated horse only in a comparatively late period. Agriculture followed next in order, and considerable proficiency had been attained, barley and wheat having become staple articles of food, and apples, pears, and other fruits stored for winter consumption.

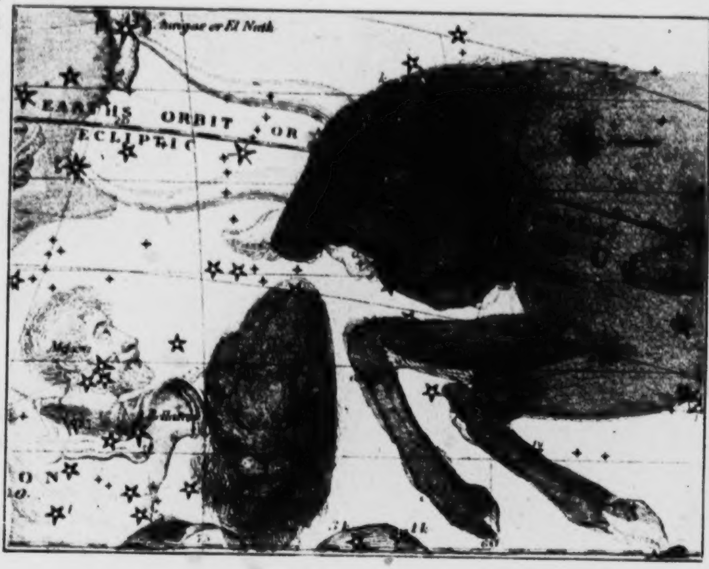
Throughout the greater part of the Stone Age in the history of the European aborigines the wild horse flourished in great numbers in nearly every section of Europe, and its flesh afforded a staple food of the savage people. In one place alone, at Solutre, in Burgundy, it was computed that the remains of more than 40,000 horses were exposed in the exploration of a vast heap of *débris* of a village of the Stone Age. But the Lake-Dwellers appear to have been unable to avail themselves of this source of food-supply.

It was upon their flocks and herds that the Aryans, from whom the English-speaking people, and the Teutons, Latins, and some others of Europe, are descended, chiefly depended for subsistence; and the importance of the chase as a means of livelihood was very much less with them than with the old hunter tribes that formed the earlier populations of Europe—hunting being the main dependence of the latter. This in itself was a great advance toward civilization. It implied a regular industry, and the possession of cattle was not only a guarantee against want, but an inducement to a more sedate and orderly mode of living.

There are no lessons so important to mankind in any stage of progress as those of industry and providence; and the pastoral life required and encouraged both these qualities. It made necessary the harvesting and storing in one period food to support the cattle in another period, and required that a sufficient number of animals be preserved to keep the stock replenished. The cows, too, had to be milked at regular times, and every night the flocks and herds must be collected into pens, or guarded by their owners, to protect them from beasts of prey, and every morning led out to the pasture. All this required a more highly organized and methodical life than is possible to hunter-tribes. The pastoral life, moreover, seems to be one particularly suited to the patriarchal type of society; and, indeed, that life and that type of society were associated in their development. Each little community would be capable of supplying nearly all of its own simple wants, and also be compelled to maintain a certain degree of isolation. The necessity of having a considerable extent of country for their pasturage would prevent different families from living very near each other. In its simplest state, too, the pastoral life is a nomadic one; so that the only social connections that could exist between such people is one of kinship, for having no fixed homes they could have no settled neighbors or fellow-countrymen.

The importance attached to cattle in that stage of advancement is evinced by the frequent use of words, in their origin relating to cattle, in all the Aryan languages, to express many of the ordinary incidents of life. Not only do cattle occupy a prominent place in Aryan mythology, but titles of honor, the names for division of the day, for property, for the divisions of land, for money, and many other words, all attest by their derivation how prominent a position cattle occupied with the early Aryans. Words that have since come to mean "king," "lord," or "prince" originally meant "the chief herdsman," "lord of the herds," the "guardian of the cattle"; therefore, our cowboys and shepherds are lords and princes and their employers are kings. In this derivation of "king," "lord," and "prince" we see evidence that the political "king" grew out of the patriarchal head of the pastoral family, or clan. The old word for "assembly," and for the meeting-place of a congress or a governing body, was the same as that for a "cow-yard"; and therefore it would seem that cattle-pens and sheep-folds expanded into walled capital cities. Our word "daughter," that corresponds to the Greek "thugater" and the Sanskrit "duhitar," means in the last-named language "the milker," and that seems to throw the practice of milking to a vastly remote antiquity. In Sanskrit the word for "soldier" meant "one who fights about cows"; the "morning" is "the calling of the cattle"; the "evening," "the milking-time." The Latin word for money, "*pecunia*" (from which our words "pecuniary," "impecunious," "peculate," etc., are derived), and our English word "fee," come from the old word "*pecus*," meaning cattle. From "pastoral" we have our word "pastor," which is bestowed upon the preacher, who in turn looks upon the members of his church as his "flock." In old Anglo-Saxon movable property is called *cwicfeoh*," or "living cattle," while immovable property, such as buildings and land, is called "dead cattle." Some of the Chinese characters show by their meaning that they were originated by a pastoral people." The idea of "beauty" is conveyed by an ideogram meaning "a large sheep"; and that of "right" or "property" by one which means "my sheep"; and so in many other instances. On tablets prepared by priests for the royal library of Sargon I., king of Accad (pre-Chaldean, 3800 B. C.), it is said that "if a sheep give birth to a lion, there will be war"; "if a mare give birth to a dog, there will be disaster and famine." And so we find cropping out from ancient languages and records words and ideas to remind us that in the old pastoral life the chief interest centered upon live-stock, which was almost exclusively the source of wealth to the people and the principal means of exchange in such commerce as that to which their limited needs gave rise.

Commerce originated among pastoral clans and tribes. Man in the hunter-stage of his development had nothing to exchange with his fellow-savages. He clothed himself with skins, made his own crude weaopns, and had constant sore need for all he won in the chase. Primitive commerce between different pastoral tribes or families would seem to have been conducted at certain meeting-places agreed upon, and which were situated in the boundary-land or neutral territory between the districts or regions they severally occupied. Such tribes or clans were frequently at war with each other, or at best preserved an armed and watchful quiet, each side ready at a moment's notice to seize upon a favorable opportunity for the commencement of active hostilities. Under such conditions friendly intercourse ordinarily was impossible, and therefore when they desired for their mutual advantage to enter into amicable relations it was necessary to establish some sort of special agreement for that purpose. It is probable, then, when they had learned the advantages that could be derived from commercial exchanges, that certain places were agreed upon as neutral territory where these exchanges might be made. Such places of exchange as would lend themselves to the convenience of both parties naturally would be selected; and their mutual jealousy would prevent one tribe from permitting the free entrance within its own domain of members of other tribes. Later, places probably would be chosen that would be within the reach of several tribes; and thus the places of exchange would be appointed in some locality to which no tribe laid any claim and which would take on a more nearly permanent character. As a greater number of tribes were admitted to the privileges of any one of such meeting-places, and as intercourse between them softened the old jealousies, asperities, and suspicions, it would become the abode of some individuals, and so gradually grow into a permanent settlement. In the meantime the tiller of the soil would have appeared, seeking a market for the surplus of his products, and other men would have learned to make with their hands various useful and ornamental things which their fellow-men would wish to possess. These advantages would bring the agriculturist and the artisan, or their representative, the merchant, into the throng at the old meeting-place of the pastoral tribes, and in the course of the years the rendezvous would develop into the market-town of a more extended general area of country, to which many tribes and traders would resort, and which finally might become the walled metropolis of a great region. Thus we may see how the present enormous commerce of the world had its origin, far back in prehistoric antiquity, in the meeting of two tribes of stock-raising people for the purpose of making such exchanges of possessions as their needs or desires would suggest, on terms that would lead each to believe that it had the better end of the bargain.



The Zodiacal Constellation Taurus, the Great Celestial Bull.
(*From Huntington's 'Plan of the Solar System.*")

Among savage and barbarous races the people of other tribes and the "stranger" of unknown tribal identity are almost invariably regarded as enemies, and therefore it must have taken a long time sufficiently to mitigate such feelings of hostility between the early pastoral clans to enable them to meet freely and peaceably for the purpose of exchange, and by which they would learn slowly to regard men of different tribes as brothers in a common humanity.

We have in our word "mark" a reflection of the conditions under which men first met for the purposes of barter. In later times it was given a more explicit meaning by joining it to the word "land" to form our familiar term "land-mark"—a thing marking a boundary of territory. But it comes from a root that means "the chase," or "wild animals," and therefore originally meant the place of the chase, or where wild animals had their haunts; a district or region unoccupied by men and remaining in a primeval state. This suggests to us the outlines of pictures of these early meeting-places of pastoral people, who carried on their simple commerce with each other in such primitive fashion. Probably they were small and more or less clear areas of land, surrounded by jungles or forests inhabited only by wild beasts; or glades which would be chosen because near-by streams would afford means of refreshment. In such places these resolute and distrustful men would meet, and in doing so fortuitously obtain passing glimpses of the blessings of peace.

It is probable that if mythology did not have its origin in the early days of the pastoral stage, its development into an incipient system was, nevertheless, the work of primitive herdsmen and shepherds. We may believe that their hunter-ancestors had been sufficiently impressed by the phenomena of nature to have formed in their savage minds crude personifications of these perplexing manifestations of mysterious powers, but the mental conditions and modes of life of the hunter-tribes were such as would confine them merely to rudimentary conceptions. The circumstances surrounding men who had advanced to the pastoral life were radically different and of a kind that would stimulate their expanding minds. It was essentially a life in the open country, where the heavens would appear to bend down on every side like a great dome resting upon the earth, and where in the night-time the bewildering glories of the firmament could be seen arrayed in all their magnificence. The keepers of the sheep and of the cattle, with their flocks and herds reposing around them, would gaze in awe and wonder upon the starry realms above, and their enlivened imagination would elevate the grotesque fancies of their forefathers to more intelligent and dignified conceptions of the mysteries of nature they beheld in the heavens, and of those they had encountered on the earth beneath in tempests of wind and flood with their blinding flashes of lightning and deafening peals of thunder; and also of the recurring seasons with their cycles of marvelous changes, in which life and death so unaccountably alternated, as the day followed the night and the night succeeded the day. It would therefore seem evident that pastoral men were the first who engaged in serious meditation and reflection upon these strange powers and their manifestations. The cares of their occupation would not cease when the sun should sink in the west, but would continue into the night. As far back as the history of our race is known, the night has had a peculiar influence over the minds of men, as it must have had in all the ages since they began to reason. It is one that diverts thoughts from the trials and burdens of the day and leads to contemplation of the problems of human existence and of the awe-inspiring phenomena of the universe.

North Polar Distance
Z O D I A C
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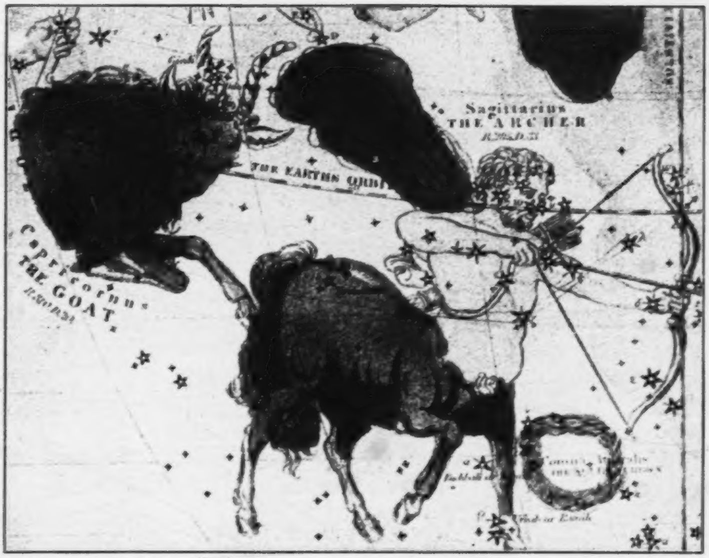
THE NORTHERN
20

The Zodiacal Constellation Aries, the Ram.
(From Huntington's "Plan of the Solar System.")

In some remote period men, probably of western Asia, began to group the stars into constellations fancifully representing some of their heroes, various animals, and certain inanimate things of special significance and importance. As they knew nothing of the earth's southern hemisphere, their work was confined to the northern skies. We have not the faintest historical trace of the origin of these groupings; they appear to have been familiar, in forms and by names corresponding to those by which we know them, to the oldest nations of antiquity of which we have any determinate knowledge—those of western Asia; and this means that they have thus been known more than 7,000 years. It is probable that the twelve constellations of the zodiac, into which the sun's apparent annual course in the heavens is divided, were arranged first; and the assignment of the bull (Taurus), the ram (Aries), and the she-goat (Capricornus) to three of these groupings is additional evidence of the vast antiquity of the domestication of these animals and of the high esteem in which they were held. Men were certainly herdsmen and shepherds before they became astronomers and myth-makers; and cattle, sheep, and goats must have been with them through many generations before these animals had become so associated with mythological and astronomical conceptions as to be regarded worthy of the distinction of occupying stations in the path of the Great Sun. The people to whom we are indebted for the arrangement of our zodiac denied the pig a like honor, which apparent reflection upon him may have been due either to his ancient but really undeserved evil reputation—that of an offensively "unclean beast" in every sense of the term—or, and more probably, to his domestication in a later period, after all the places had been taken. When, in modern times, the southern skies became available for mapping into constellations, the competition for positions in them was very great, but again the pig failed to receive the consideration that was justly and manifestly his due from the western civilized nations he had served so well. But he fared better at the hands of the Chinese, being known to have been in their zodiac more than 4,000 years, but how much longer we do not know.



The Zodiacal Constellations Capricornus and Sagittarius, the Goat and the Centaur.
(*From Huntington's "Plan of the Solar System."*)

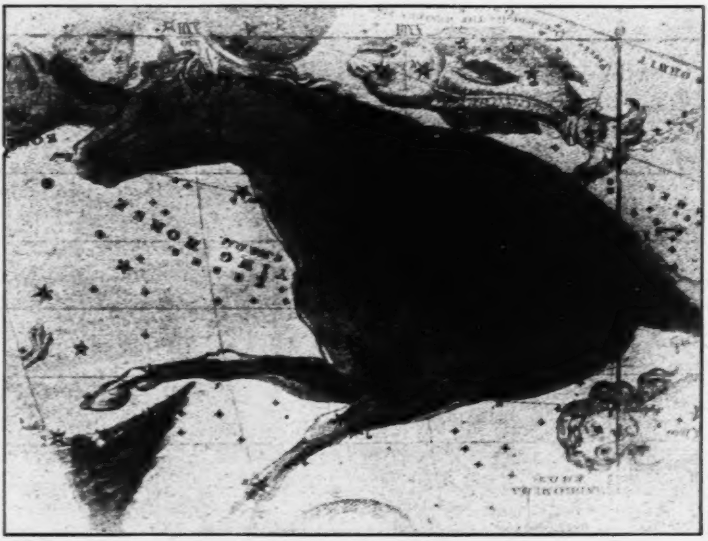
The group of northern stars, in the United States commonly called "The Great Dipper," has many other names. Ancient Latin people made a plow of the four "bowl" stars, and the three of the "handle" were to them three oxen drawing the plow. Later they appear to have extended the oxen idea to all of the seven stars and called them "the seven oxen"—"Septem-triones"; hence the name sometimes used for the north, "septemtrional."

The horse is partly represented in the zodiac by the centaur (Sagittarius). This monstrous combination of man and beast would seem to have been conceived before the horse had been acquired by the early makers of myths and constellations, who probably knew him only from vague stories that had drifted to them from some distant country in which he had been subjected to man's service. While sheep, goats, and cattle undoubtedly were domesticated ages before the horse was added to the list, the union of man and horse in the centaur implies a high antiquity for the intimate association of the two. The conception is somewhat similar to the supposition of the natives of the West Indies and of Mexico when first they saw the Spaniards mounted on horses—that horse and rider were one and supernatural. The Greeks called the Great Dipper the "Chariot," the four "bowl" stars representing the four wheels of the vehicle and the three "handle" stars three horses. Near the star at the bend of the "handle" is a small one, which they made the "Cavalier," or rider of the middle horse. English people in former times called the group by the name "King Charles' Wain," the "bowl" constituting the wagon and the other three stars were the horses; the small star referred to above being "Jack by the middle horse." But the great horse of the star-spangled celestial vault is Pegasus, created by the sea-god Neptune from drops of blood that fell from the head of Medusa, who had been slain by Perseus. This wonderful and beautiful pure-white winged steed, gifted with immortal life as well as with amazing speed, was the favorite mount of various gods and goddesses, who delighted in taking aerial flights on his broad back when they went forth on their heroic errands of mercy or rescue, or to slay monsters of evil. After much gallant service in such employment, Pegasus was transferred to a permanent place in the skies, where he remains to this day. The horse was further honored in the constellation "Equuleus," or "the little horse."

In the Greek and Roman mythologies, which in the main are much alike, the latter having been derived from the former, animals are given much prominence. In what follows concerning some of the more prominent parts taken in these ancient and entertaining products of the imagination by the ancestors of our domestic animals, the Roman names generally are used, because they have been made more familiar to us in art and poetry.

The goat is the first to appear in these classical stories. To save the infant Jupiter, who became the great god, from being eaten by his cruel and apprehensive father, Saturn (or Chronus—Time), the mother, Rhea (the Earth), deceived the father and secreted the babe, which later was entrusted to the care of the Melian nymphs, who bore him off to a cave in Mount Ida. There a goat, Amalthea, was procured to act as nurse, and filled her office so acceptably that she was placed in the heavens as a constellation of the zodiac—a brilliant reward for her kind ministrations. The Greeks received the basis of their constellation-conceptions from far more ancient peoples, and this high place given to their Amalthea long had been assigned to the she-goat by the older nations. The first-magnitude star, Capella, of the constellation Auriga, and remarkable for its brilliancy, is another representative of the goat in the heavens, its name meaning "a little goat." It is, however, a large and most beautiful orb, twinkling and flashing in many hues, and is the brightest of the circumpolar stars. The services of Amalthea were about the only memorably distinguished ones rendered to the gods by the great goat species, but among the male divinities in a subsequent time were the Satyrs—curious beings with a man's body and a goat's legs, hair, and horns; another conception of a union of man and beast. The most famous of these was Pan, the god of the shepherds, who was the reputed son of Mercury, and of a charming young nymph named Penelope. We are told that when his mother first beheld him she was aghast, for he was the most homely as well as the most extraordinary creature she ever had seen; and the gods ridiculed him without mercy and without regard to the feelings of his parents. In early manhood, or goathood, his disappointment and sorrow at his rejection by a nymph whom he loved dearly, and whom the gods changed into a clump of reeds to protect her from his ardent attentions, were very great. They wrung from him a prolonged sigh, which, passing through the rustling reeds, produced plaintive tones; whereupon Pan took several pieces of reed of unequal lengths, and fashioned from them a melodious instrument, upon which he has ever since been playing to shepherds in the fields and groves.

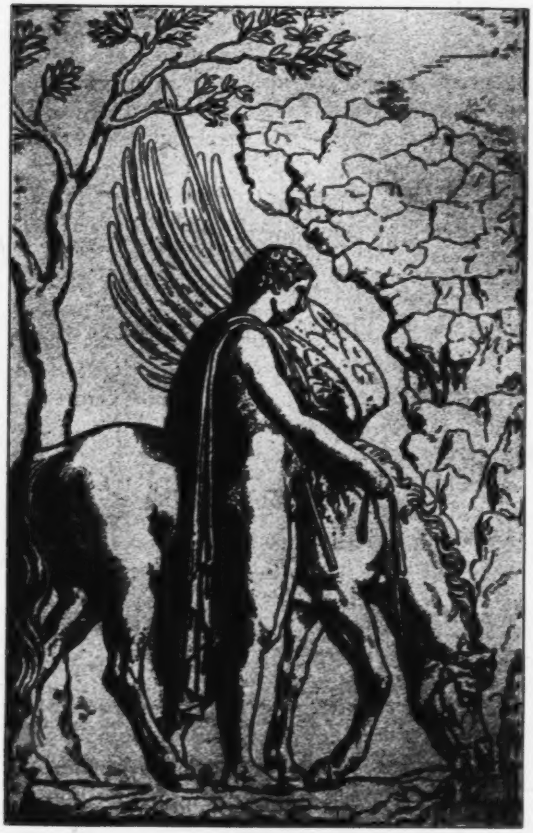
Sheep are credited with having rendered many services to the gods, but not more important than those of the goat Amalthea. When, after several struggles for its possession, Jupiter thought he was firmly seated on his throne, a terrible dragon-monster named Typhon was sent to attack him. This creature was so frightful and uttered such blood-curdling screams that the gods in terror fled from Mount Olympus and took refuge in Egypt. In mortal fear lest Typhon should follow them there, they assumed the forms of different animals that he might not recognize them. Jupiter became a ram, a form he retained until the restoration of his courage, when he went back to Olympus, slew Typhon, and resumed his throne, from which he has not since been displaced. When Phryxus and Helle, the son and daughter of Athamas and of Nephele, sought to escape the cruel treatment of their stepmother, Ino, they mounted a winged golden-fleeced ram sent by Neptune to transport them to Colchis. The ram flew swiftly over land and sea; but Helle, frightened at the sight of waves tossing beneath her, suddenly lost her hold on the golden fleece and fell off the ram's back into that part of the Mediterranean Sea since known as the Hellespont. Phryxus, more fortunate than his sister, reached Colchis in safety, and, in gratitude to the gods, sacrificed the ram and hung its golden fleece on a tree, near which he stationed a dragon to guard it. This was the fleece in quest of which the hero, Jason, had so many remarkable adventures. When Ulysses and his twelve companions landed in Sicily in search of food, they found great flocks of sheep grazing on the plains and hillsides, and soon discovered a large cave containing rich stores of milk and cheese. The sheep and the cave with its contents belonged to the terrible giant Polyphemus, the largest and fiercest of the gigantic Cyclopeans, a race having one huge eye in the center of the forehead. Polyphemus entrapped the strangers within his cave and began eating two of them at each meal. Six thus having been disposed of, Ulysses resolved to escape with his remaining companions, or die a less ignominious death in an attempt to do so. While the giant was asleep the Greeks burned out his only eye. The sheep being sheltered in the cave at night, Polyphemus, the morning after he had lost his eye, stationed himself at the cave's portal, and as the animals went out he counted them and passed his hand carefully over the back of each to make sure that none of his prisoners was mounted upon it. Having observed this maneuver, Ulysses the next morning fastened his companions under the rams, reserving the largest one for his own use, and saw them pass out one after the other undetected; then, clinging to the wool on the under side of the body of his ram, he too was slowly carried out. When he sailed away, Ulysses took with him the best of Polyphemus' flock.



The Constellation Pegasus, the Flying Horse.
(From Huntington's "Plan of the Solar System.")

Cattle, as might be expected, were associated with many of the exploits of the gods and goddesses. When Typhon caused the precipitate evacuation of Mount Olympus, Juno, the sister-wife and queen of Jupiter, fled with the others to Egypt, where she changed herself into a cow, and so remained until her lord regained his courage. Jupiter often indulged in love affairs with other goddesses, and even with mortal maidens, and because of Juno's jealous disposition he was obliged to conduct his intrigues with great secrecy and circumspection, and therefore usually adopted the precaution of a disguise. To win Europa, the fair daughter of Agenor, for instance, he became a white bull, sought the presence of the damsel, and easily persuaded her to elope with him. Taking her upon his broad back, the bull galloped to the sea, into which he plunged and swam to a new country, revealing his true character to her while on the way. In the new country, to which he gallantly gave her name, Europe, he lived happily with her at intervals when he could escape the watchfulness of the jealous Juno. Cadmus, a brother of Europa, set out to find his sister. Consulting an oracle, he was dismayed by the reply he received: "Follow the cow, and settle where she rests." In perplexity he started off, but soon perceived a cow leisurely walking in front of him, and, mindful of the oracle, he ceased his search for his sister and followed the cow. Urged by curiosity, many adventurers joined him on the way. The cow at last rested in a land since called Boetia, and Cadmus and his companions founded on the spot the famous city of Thebes. Dirce, a fascinating demi-goddess, supplanted Antiope in the affections of Lycus, of Thebes. The two sons of Antiope besieged and took the city, put Lycus, their stepfather, to death, and, fastening Dirce to the tail of a great vicious bull, turned him loose to drag her over briars and stones until she should perish. While Ulysses was on his famous voyage he landed on Trinicria, the island of the sun, where grazed the sacred herds of Apollo, the sun-god. Ulysses ordered his men not to touch any of the animals lest they should incur divine wrath, but during one of his temporary absences they slew some of the cattle. To their amazement and terror, the meat lowed while roasting on the spits, and the empty skins moved and crawled as if alive. Apollo was very angry over this outrage, and Jupiter, to appease his wrath, smashed with a thunder-bolt the galley of Ulysses, and drowned all on board except the commander, who was spared because he had not partaken of the sacred flesh. Apollo had other troubles over his cattle that were quite as provoking as this. In one instance, the infant Mercury drove fifty of them to a secluded spot, where he killed and ate two at one meal. Apollo soon missed them and charged Mercury with their theft. A court of the gods convened, and found Mercury, who had just been appointed god of thieves, guilty. The latter restored the remaining animals, and in exchange for the two he had eaten, gave their owner a lyre which he had fashioned from the shell of a tortoise. And so these mythological stories of cattle run on. Juno caught Jupiter paying court to Io, and the god, to protect her, changed her into a heifer, which Juno took away with her, and which Mercury released, and Jupiter restored to her former womanly loveliness. Hercules, also, was the hero of several. One of his twelve great tasks was to clean the stables of Augeas, King of Elis, who had immense droves of cattle. This was done by turning a river through the building. Another was to "rope and tie" the Cretan bull, a mad creature given by Neptune to Minos, King of Crete. Still another was to take the divine cattle of Geryones, a great giant, which was easily done. While Hercules was on his way home with them, the loathsome giant, Cacus, stole some of the cows and secreted them in his cave, where Hercules found them and slew the thief. Hercules challenged Achelous to a wrestling-match; the latter assumed the form of a bull, and, with lowered horns, rushed towards Hercules, intending to toss him aside. But the hero seized him by one of his great thick-set horns and held it so firmly that all the bull's efforts to free himself from the powerful grasp were in vain until the horn broke. In most of these stories, especially in those relating to Apollo and Hercules, the cattle are the fleecy clouds pasturing "in the infinite meadows of heaven," whose full udders dropped down "rain and fatness" upon the land, and which are stolen either by the wind (Mercury) or the storm-demon (Cacus), or the impious companions of Ulysses who pay for their sacrilegious temerity with their lives.

The horse invariably is accorded a more dignified place in these myths than are the other animals, and in every instance is associated with more or less heroic deeds. The chariot of Apollo, the sun-god, was drawn by four swift and most spirited steeds. Phaeton, the son of Apollo, once obtained by subterfuge his father's permission to drive them one day's journey through the heavens, and recklessly drove them so near to the earth that much of its vegetation was shrivelled, the fountains and rivers were dried in their beds, smoke began to rise from the parched and blackened earth, and even the people of the land over which he was passing were burned black—a hue retained by their descendants to this day. Terrified by what he had done, Phaeton whipped up his horses, and drove so far away that all the vegetation that had survived the intense heat came to an untimely end on account of the sudden cold. Jupiter ended the youth's wild career with a thunder-bolt, which hurled his body to the earth. Diana's moon-car was drawn by milk-white steeds, but she never entrusted them to another's driving. Bay horses, fiery and impetuous, were attached to the chariot of the war-god, Mars, and enjoyed the uproar of battle as much as did their sanguinary master. The chariot of Pluto, god of the underworld, was drawn by four coal-black steeds of marvelous power and endurance. In a large measure it was due to their fleetness that he was successful in his abduction of Proserpina. Neptune, the great god of the sea, whose principal votaries were seamen and horse-trainers, is said to have loved the goddess Ceres, who, to escape his persistent wooing, assumed the form of a mare; but he was not at all deceived by this stratagem, and straightway changed himself into a horse, in which guise he trotted contentedly after her and renewed his attentions, which finally were accepted. The offspring of this equine pair was Arion, a magnificent winged steed, gifted with the power of speech. His education was entrusted to the Nereids, who trained him to draw his father's chariot over the waves with incredible rapidity, and parted with him regretfully when he was given to Copreus. Later he successively passed into the hands of Hercules and Andrastus, the latter winning with him all of the celestial chariot races. Boreas, the god of rain, snow, hail, and tempests, once changed himself into a horse, and, united with the mares of Dardanus, King of Troy, became the sire of twelve steeds, so swift that none could overtake them. Diomedes, King of Thrace, kept some fine coursers, which were fed on human flesh. In order to obtain a sufficient supply of fresh meat for his horses, this king had decreed that all strangers who should venture into his kingdom should be seized, and, when sufficiently fattened, executed and served in his horses' mangers. One of the tasks of Hercules was to punish Diomedes for this long-continued barbarity, and he did so by feeding the king to his own horses. Many horses were used by each side in the siege of Troy, but the famous wooden horse surpassed them all in practical utility.



Pegasus on Earth.
(*From Carus' Greek Religion and Mythology.*")

The pig receives scant and rather discreditable attention in these myths, and, with one exception, the references are to the wild boar. Adonis, a bold young hunter, and the lover of Venus, after an exciting pursuit, attacked a wild boar, which, goaded to madness, turned upon him, buried his strong tusks in the youth's unprotected side, and trampled him to death. To capture the ferocious wild boar of Erymanthus in Arcadia was one of the successfully performed tasks of Hercules. Œneus, King of Calydon, omitted a yearly sacrifice to Diana, and this goddess, enraged by his neglect, sent a monstrous boar to devour his subjects and devastate his realm. Meleager, the King's son, "rounded up" all of the brave men of the country and instituted a great hunt, the object of which was the capture or death of the dangerous and destructive beast. Atalanta, who was loved by Meleager, joined in the hunt, brought the boar to bay, and dealt him a mortal wound, but even in his dying struggles he would have killed her had not her lover come to her rescue and given the boar his death-blow. Ulysses and his followers, who had so many varied adventures, landed on still another island, where dwelt the beautiful, golden-haired enchantress, Circe. A part of the company set out to explore the island, leaving Ulysses and the others to guard the vessels. Coming to the palace-home of Circe, these self-invited guests were received by her most graciously, and were asked to partake of a bountiful dinner. The men feasted greedily, for they had fasted many days, and Circe watched them with ill-concealed disgust. Suddenly she started from her seat, and, touching them with her wand, bade them assume the form of swine (which gross and gluttonous animals their behavior suggested), and take themselves to their sties. It was only by threatening to run his sword through her that Ulysses forced Circe to restore his companions to their human form.

The antiquity of these myths, the extravagance of imagination that characterizes them, the beauty of many of the conceptions they represent, and the human interest with which they are saturated, have made them classical to all enlightened people of modern times. But beyond doubt some of them betray a close connection with animal worship, which, originating in the pre-historic ages, has been continued among savage and even among semi-civilized tribes to the present day. The myths referred to in the foregoing, in which the goat, the ram, the bull, and the horse receive distinctions but little less exalted than those bestowed upon the gods, imply that our remote Aryan ancestors greatly venerated, if they did not actually worship, them, or objects that stood for them. In the myths of the Hindus, who, like ourselves, are descended from the Aryans, the ram, the bull, and the horse are conspicuous. For example, as to sheep, in the story of Pururavas, a mortal, and Urvasi, a fairy goddess, the latter grieves because other fairies have stolen her "darlings" —an ewe and two lambs. To bulls a sacred character, that is still retained, is attributed and in some of his aspects, Indra, one of their great gods, is represented by the bull; and the old conception of the clouds as cows appears frequently. The wind, or rather the god of the wind, is said to ride a-horseback—which reminds us of the uses to which Pegasus was put.

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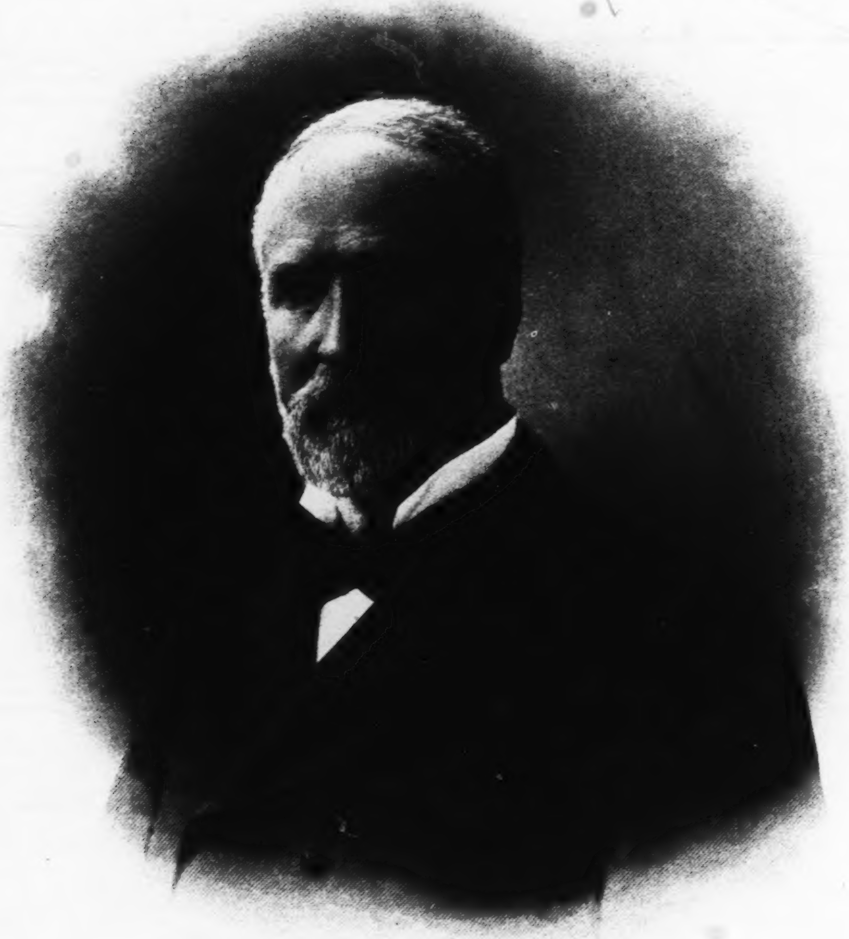


James Wilson

Hon. James Wilson, Department of Agriculture.

It will readily be acknowledged by one who investigates the subject, that the Department of Agriculture is one of the most important of the departments of the United States Government. As shown by the census, a majority of the people of our country are farmers. Nearly two-thirds of the exports of the United States originate upon the farms, and it is a common expression that when the farmer is prosperous the entire country is prosperous. This term broadly covers also the live-stock interests, for the farmer and the live-stock man are brothers, deriving their revenue from the output of the soil, and united, by the very nature of their calling, in a common destiny.

The live-stock raiser and the farmer are therefore interested profoundly in the operations of a great branch of the general Government that aims to lighten the burdens of their toil and increase their profits. The extent to which these results have been accomplished is astonishing. The numberless ways in which the Government has lent its kindly assistance to farmers and live-stock men are so important that it requires tons of printed matter each year to convey the intelligence, and the annual appropriation made by Congress to advance the interests of the classes named is rapidly approaching $6,000,000. An army of experts—the best in the world in their respective specialties—is constantly engaged in the office or in the field, under direction of thoroughly competent heads, the entire force acting through orders of a central authority vested in the Secretary of Agriculture. This position calls for executive ability of the highest order, as the operations extend to every State and Territory of the Union and to the recently-acquired islands of the sea. Representatives of the Department are also sent to the most remote countries of the globe in search of plants that may be utilized in the Republic, or upon tours of investigation, required by one of the potential agencies of modern advancement. It is shown in reports of the Department that the Government of the United States is doing more for the farmer than all other nations combined, and yet the science of agriculture is only in its rudimentary stages. What can be accomplished in years to come, according to men competent to prognosticate upon the subject, surpasses the most vivid dream of half a century ago. Each year adds new laurels to the peaceful victories of the Department of Agriculture, as by giant strides it goes forward upon its mission.

James Wilson, the present Commissioner of Agriculture, is one of the most widely-known members of the President's Cabinet. He has occupied the position since 1897, when he was appointed by President McKinley, and he is one of the most welcome speakers appearing upon the platform anywhere in the country, where subjects pertaining to the development of the wealth of the Nation are discussed. Mr. Wilson has possessed all the advantages of training necessary to produce a leader in business. He is a practical farmer, a man of thorough education; versed in history, politics, the great world questions that are coming forward for solution by the United States; and so thoroughly immersed is he in the work in which he is engaged, that he throws into it his whole soul.

Years of service in the Legislature of his State and in Congress fitted him pre-eminently with the qualities necessary in influencing others, and few public men have ever lived in Washington whose recommendations have gained a more attentive consideration. It has been said that Mr. Wilson is the best qualified man in the United States for the position he fills, but he makes no such claim, and he has a strong aversion to personal eulogy. The Department over which he presides is his pride, and the ambition of his life is to advance its usefulness. In his addresses, he frequently states that he never expects to meet a man as enthusiastic and confident concerning the future development of the natural resources of the United States as himself. Especially does he apply this sentiment to the agricultural possibilities. He is an optimist of the most pronounced type, and his glowing utterances have infused new hope into tens of thousands of agriculturists and started them upon the road to financial independence.

Mr. Wilson was born in Ayrshire, Scotland, August 16, 1835. His ancestors for generations were farmers and his father was a farmer. When he was sixteen years of age he came with his parents to Connecticut, where the family remained for three years, moving to Tama County, Iowa, in 1855. In 1861 Mr. Wilson began farming for himself, and his Iowa farm of 1,200 acres is today one of the finest improved farms in the West. He was a member of the twelfth, thirteenth, and fourteenth Assemblies of Iowa, Speaker of the House during the last-named session, and was three times elected to Congress, his last term closing in 1885. He filled the position of State Railway Commissioner, and Regent of the State University of Iowa, and for six years was Director of the Agricultural Experiment Station. He also occupied the position of Professor of Agriculture in the Iowa Agricultural College. A successful farmer upon scientific lines, he exerted a large influence in his own and adjoining States in favor of advanced methods of farming; and on March 5, 1897, when he took the oath of office as the head of the Agricultural Department, the farmers and the live-stock raisers of the country recognized that they had a staunch friend at the national capital.

The inception of the Agricultural Department can be traced as far back as 1836, when the Commissioner of Patents made a distribution of seeds to farmers. The powers of the Commissioner were gradually enlarged by Congress, and in 1862, during the Civil War, the Agricultural Bureau was established separately from the Patent Office, and the title of Commissioner of Agriculture was given the head of the department. Near the close of the first term of President Cleveland the Department was given a Cabinet position, and Norman J. Colman, of Missouri, was appointed to the place. President Harrison appointed General Jeremiah M. Rusk, of Wisconsin, to the office. He was followed in President Cleveland's second term by J. Sterling Morton, of Nebraska, who was succeeded by Mr. Wilson.

As the usefulness of the Department has increased, its duties have been greatly extended until it has become "an enormous workshop and museum, of interest to all persons engaged in making articles that grow from the ground, or in rearing living things that feed upon them."

The Weather Bureau was transferred from the War Department to the Department of Agriculture in 1891, and the Department now has eight distinct bureaus and half a score of subordinate divisions.

Before proceding further in describing the operations of the Department under Mr. Wilson, it may be interesting to take note of some of his ideas. He is a man of close observation, and his long residence in the West gave him a familiarity with many of the perplexing problems that has added much to his usefulness as a public officer.

The results of personal investigations upon the land and water problems of the West have led him to the following conclusions, which he presented in one of his recent annual reports:

1. Private enterprise should be supplemented by public aid in the construction of certain classes of irrigation works.

2. Reservoirs located in the channels of running streams should be public works.

3. The first step toward national aid for irrigation should be the passage of enlightened codes of water laws by the States to be benefited.

4. The land laws should be modified by repealing the Desert Land Act and by requiring cultivation as well as residence upon a homestead.

5. The non-irrigable grazing-lands should be leased in small tracts, so as to unite the irrigable and the pasture-lands.

In the following extract from the annual report of the Department of Agriculture for 1903, Mr. Wilson presents an interesting summary of a great subject:

"A survey of half a century discovers the remarkable character of the movement in which the farmers of this country have become the chief purveyors of the world.

"In 1851 our shipments of farm products were valued at $147,000,000, while half a century later, in 1901, they amounted to $952,000,000, an increase of $805,000,000, or about 550 per cent. The farmers' export trade for the decade 1851-1860 amounted to $1,896,000,000, and in the following decade, in spite of the transfer of multitudes of men from productive to destructive life, the total was $2,431,000,000. In the decade after that, the export trade doubled and amounted to $4,864,000,000. In the next decade, the amount grew to $5,740,000,000, and the total for the decade of 1891-1900 was $7,032,000,000, or an average of over $703,000,000 a year. Subsequent to the last-named period this trade has gone on increasing and reached its highest amount in 1901 with exports valued at $952,000,000. The export trade in farm products for 1903 was valued at over $878,000,000, an amount second only to that of 1901.

"The consumption of cotton in this country is now greater than that of any other country, and yet the cotton planters of the South not only supplied this market last year, but exported a surplus of 3,569,000,000 pounds, valued at $317,000,000, or for every working day in the year about 12,000,000 pounds, worth more than $1,000,000.

"Represented in value, the exports of grain and grain products had about two-thirds of the importance of cotton in the last fiscal year, the value of the export being more than $221,000,000. From 46,000,000 acres of wheat there was a surplus for foreign mouths amounting to 114,000,000 bushels and 20,000,000 barrels of flour, amounts that together represent 204,000,000 bushels of wheat.

"Third in importance are the exports of meats and meat products, with a grand total of $178,000,000, to which may be added $35,000,000 for live animals. Quantities that are beyond the grasp of the mind represent the exports of meats and their products. The pounds of beef were 385,000,000; of pork, 551,000,000; of lard, 491,000,000; and of oleo oil, 126,000,000.

"The foregoing figures, it should be borne in mind, do not stand for the total production of the farms, but for the surplus production after the wants of the people have been satisfied."

As stated above, Secretary Wilson is a practical farmer. His answer as to the education best adapted for a farmer's boy is worthy of a place in the home of every farmer of the land.

"I would have him learn to do the chores early in life," said he, "and become acquainted with the practical workings of the farm. I would start him off to the district school in the winter, and would keep him there until he had gotten well through the middle part of the algebra, together with a good knowledge of the common branches. By that time I believe he would be fitted to enter a first-class agricultural college. I would expect him to graduate from this college in four years, and after that I would give him a post-graduate course of, say, two or three years. I would send him, mark you, to a college where practical demonstrations were made, not theoretical. I would send him to a college where they had all the paraphernalia of the best schools of the country, in addition to horses, cattle, sheep, a good dairy, and such other essentials needed to fully explain actual farm life. After that I would expect him to be prepared to take a minor place under some able agriculturist, where he could learn the practical side of things, using his theory as a help to the attainment of higher ideals."

On February 15, 1904, the Senate Committee on Agriculture and Forestry submitted a report recommending an increase in appropriations for the Department of Agriculture, which gave to the country much interesting information concerning the Department. In reviewing the work accomplished by the bureau of Animal Industry during the preceding year, the committee called attention to the expenditure of $791,000 by the Bureau. The report shows that with this money 37,000,000 animals were inspected before slaughter, as provided by law, at an approximate cost of 0.4 cent each, and the same number of animals was inspected at the time of slaughter, and the meat marked and certified to, and the packages containing meat stamped for identification, at an approximate cost of 1.5 cents per carcass. Four hundred and ninety thousand carcasses of hogs were inspected microscopically for the foreign market, at a cost of about 16 cents per carcass. These figures show that the inspection was done in a very economical manner. The result of this inspection was to give the people of this country inspected meats from which carcasses of diseased animals had been excluded, and also to enable a Govern ment certification of meats for the foreign trade.

By this inspection it was shown that in the stock of meats which went into commerce there were 78,000 carcasses affected by disease or otherwise unwholesome and unfit for consumption. The removal of these carcasses at the time of slaughter gave to the consumers of this country a stock of pure and wholesome meat, and it has served to maintain the reputation of meats which were sent to other countries.

There was also expended about $58,000 for the inspection of live animals exported to other countries. This included cattle, sheep, and horses, and also the inspection of the vessels which carried them. The cost of this inspection, including a reinspection in British ports at the time of landing, was approximately 15 cents per head, and without such an inspection this export trade of 400,000 live animals could not be continued, as foreign countries would no longer have received them.

The result of inspecting the vessels and requiring proper fittings, ventilation, and care for the ocean transit was to so diminish the losses that insurance, which at the time the inspection began was 8 per cent of the value of the animals, was reduced to less than one-half of 1 per cent, a saving greater than the total appropriation for all the work of the Bureau of Animal Industry.

Twenty-three thousand five hundred dollars was spent in inspecting animals imported from Canada and Mexico, to shut out contagious diseases, a line of work absolutely necessary for the protection of the flocks and herds of the United States.

Two hundred and nineteen thousand dollars was expended in New England in stamping out the foot-and-mouth disease, the contagion of which was brought into the country in some unknown manner, but undoubtedly with some articles of merchandise. This disease was widely spread and extending very rapidly when it was brought to the attention of the Agricultural Department, and if it had not been promptly suppressed it would no doubt have been distributed to all parts of the United States, causing a loss, judging by the experience with this disease in European countries, of not less than $500,000,000.

Eighty-one thousand dollars was spent in the inspection of sheep for interstate commerce and the work of stamping out the sheep scab, a contagious disease which a few years ago was threatening the sheep industry of the country, but which is now being controlled and rapidly eradicated. When this work is concluded it will be worth many millions of dollars to the sheep industry of the country, besides improving the reputation of American sheep in foreign markets.

The inspection of southern cattle and the supervision of their shipment to market in order to prevent the spread of Texas fever, cost $42,000. This inspection is necessary to prevent the infection of the stock yards and stock cars. At present there is practically no loss from this cause. In the investigations made by the Bureau, a treatment was discovered for southern cattle which will remove the ticks by which the infection is spread and allow such animals to go to market without restriction.

A contagious disease of horses, which threatened the horse-breeding industry, existed for some years in the northwestern States, and the Department made every effort to prevent its spread and stamp it out. This work during the year cost $18,000.

A disease known as cattle scab appeared in the western section of the country and spread rapidly, causing enormous losses and almost threatening the cattle-raising industry. Many States appealed to the Department for assistance in controlling and eradicating it.

The Bureau made and distributed during the year 1,700,000 doses of blackleg vaccine, which, according to reports of the owners, must have saved in the neighborhood of 100,000 head of cattle, worth more than the total appropriation for the Bureau.

These are the most prominent items named by the committee for which expenditures were made, but there were others, including the scientific investigation of disease and the maintenance of quarantine stations for imported animals, which have proven of the greatest utility to the live-stock interest.

In addition to the Bureau of Animal Industry, the following bureaus are connected with the Department: The Weather Bureau, Bureau of Plant Industry, Bureau of Forestry, Bureau of Chemistry, Bureau of Soils, Bureau of Entomology, and Bureau of Statistics.

The total number of employees in the Department is about 4,000, including several hundred experts, representing the highest attainments in their respective lines.

When it is remembered, as pointed out by Secretary Wilson, that the people of the United States buy annually over $400,000,000 worth of products of foreign lands, one-half of which, he estimates, will eventually be grown in the United States, and the other half capable of being produced on the insular possessions of this country—when these facts are considered, it is evident that the Agricultural Department is a tremendous safeguard to the country.

The work of the Weather Bureau is well known, and its beneficial effect in preventing losses by storms and floods and protecting commerce. Carefully conducted experiments in wireless telegraphy indicate that the time is not far distant when the Bureau will operate a complete system of wireless telegraphy for the protection of ocean vessels on all the coast lines of the United States.

The work accomplished by the Bureau of Plant Industry under Mr. Wilson and his predecessors has been of highest importance to the entire country. The rice production of the South has been vastly increased, immense areas are now devoted to the production of macaroni wheats, oats brought by experts of the Department from foreign countries, and kaffir corn. The Department has introduced hardy plants to the arid regions of the West, and has accomplished wonders in creating new varieties of fruits, cottons, and cereals for the benefit of the American agriculturist. Of one branch which is being investigated, Secretary Wilson says:

"Nearly one-third of the area of the United States has insufficient rainfall for the best culture of the ordinary crop plants. Considerable tracts of land are already irrigated and much more will be artificially watered in the future; but there must eventually remain enormous areas—doubtless nearly a fourth of the entire land surface of this country—which are doomed to remain perpetually in their present arid and semi-arid condition for the want of an adequate supply of water for irrigation. The total rainfall over the lands lying between the one hundredth and one hundred and twentieth principal meridians is inadequate to irrigate more than a small fraction of the arable lands, no matter how carefully conserved and used. Dry farming is then a necessity, in order to utilize such lands where irrigation can never be practiced.

"The Bureau of Plant Industry is occupying itself with the future of these regions, and is making a thorough study of the conditions and of the best ways and means of meeting them.

"It is believed that not only can the grazing capacity of such lands be increased by intelligent management, but that large areas of such dry, but often extremely fertile, lands can ultimately be utilized for 'dry farming.' It is believed that as the irrigable lands become more and more completely occupied, there will be an increasing appreciation of the value of, and a greater effort to utilize, the dry, unirrigable lands adjoining settlements founded in the irrigated regions. In the meantime the scientists of this Department are endeavoring to secure plants that will grow in very dry soils, and at the same time yield paying crops that can be absorbed by our markets or profitably utilized on the farm. In order to carry out such introduction of new crops, it is necessary to study most carefully the life history of each particular plant, in order to determine with some degree of accuracy its needs as to climate and soil, also its cultural requirements and the best methods of marketing or otherwise utilizing its products. It is only by carrying out in advance a life-history investigation in the most scientific way, that it will be possible to introduce such new crops into profitable culture on a commercial scale without running the risk of most costly and discouraging failures."

The Bureau of Forestry is carrying forward scientific investigations of forest problems and endeavoring to prevent the tremendous waste in the forests of the country. The Bureau encourages the planting of trees and the wise use of forests now standing. As an educational force, the value of this bureau can hardly be estimated. It is a recognized source of information for the country upon all forest subjects.

The Bureau of Chemistry has grown to such importance that its assistance is called for by nearly all other branches of the Agricultural Department, and analyses of great value are made for growing interests in various parts of the country. The investigations of the Bureau as to the adulteration of foods and the effect of adulterated foods upon health, have created a general interest in the subject and led to many improvements in the food supply. The bulletins issued by this Bureau are highly useful and educational and have a wide distribution.

The Bureau of Soils is an important link in the chain of duties devolving on the Department. Studies of soils furnish a basis for extending the agricultural field and carrying the better practices of one area to another. It affords many suggestions to land-owners. The recent reports upon reclamation of alkali lands and upon tobacco culture have added many millions of dollars to the wealth of the country, and the work is being prosecuted with increasing ability and energy.

The destruction caused by insects in this country amounts to many millions of dollars annually. The Bureau of Entomology has been making careful investigations of these insects. The Mexican cotton boll-weevil has been under investigation since 1894, and the results of the experiments have demonstrated that cotton can be grown in Texas in spite of the boll-weevil, by adhering to the methods which the work of this division has shown to be effective; and when the demonstration and educational work which is now being prosecuted has borne fruit, the damage from the boll-weevil in Texas will be reduced to inconsiderable proportions, and the result will be a saving to the State of Texas alone, of from $10,000,000 to $15,000,000 annually. The practicability of the methods evolved as a result of the departmental work has not only been fully shown on the experimental and demonstration farms conducted under the agents of the Bureau of Entomology, but has also been shown by progressive farmers who have adopted these methods with greater or less completeness.

The successful introduction of the fig-fertilizing insect is an example of very great benefit coming from very small initial expenditure. At a cost of $1,000 to the Department of Agriculture an exploration was made by the assistant entomologist of China and Japan to discover the native home of the San José scale, and, if possible, to find and import into this country its natural enemy. The native home of the scale was found in north China, and the natural enemy, a small predaceous beetle, was imported to this country and has already been bred and distributed in more than a dozen States overrun by the San José scale.

The worst scale pest of the orange and lemon in California is the black scale, necessitating the yearly spraying or treating of nearly all orchards at a cost of many hundreds of thousands of dollars. The entomologist was enabled to import into California a notable enemy of the black scale, in a small parasitic fly from South Africa. This fly has now been widely distributed in southern California, and many orchards have been entirely freed from the scale pest by this parasite. Like examples could be given in the case of the investigation of insects injurious to truck crops, as, for example, the investigation of insects affecting the sugar beet, beans, and peas. Similar work is being done with the insects affecting stored products, including cereals, tobacco, fabrics of all sorts, wood products, and stored meat products; also of insects affecting fruits, and particularly of insects in their relation to the health of man. In this last direction the work of the Office on the mosquito in its relation to malaria and yellow fever, and on various flies responsible for carrying typhoid, conducted over a number of years, has been of the greatest value in supplementing the investigations of the medical authorities of the Government, with the result of greatly lessening the danger of malaria and yellow fever and typhoid, three of the worst scourges of modern times.

The work of the Bureau of Statistics is of great value to the producing agencies of the United States. The practice of the Bureau is to make the widest possible distribution of the information received through its various agencies, and to make the distribution as promptly and speedily as possible. The monthly crop reports of the Bureau are telegraphed to the most distant parts of the country, and 100,000 correspondents of the Bureau are in touch with the central office through the mails. The importance of the work is accentuated by the competition, which is growing keener each year, of Canada, Australia, and Argentina.

The duties of the Commissioner of Agriculture are only partly told in this summary of the Bureaus. He has charge, in behalf of the general Government, of experiment stations in all the States and Territories, in Alaska, Porto Rico, and the Hawaiian Islands; represents the Government in its relations with the State Agricultural Colleges; is an active promoter of Farmers' Institutes; directs investigations in problems of irrigation and drainage; watches the developments in agricultural engineering; encourages improvements in public roads; and has general direction of the preparation and distribution of 12,000,000 or 13,000,000 copies of various publications sent out annually from the Department.

A library of more than 80,000 specially selected books and pamphlets is maintained by the Department at Washington, to which workers from all parts of the United States look for assistance.

It is thus seen that the Department of Agriculture keeps abreast of the improvements in this important branch of human progress, and is a beacon whose light shines brightly even in the marvelous illumination of the twentieth century. The Department is a credit to the American people and to the institutions whose blessings are making their influence felt throughout the world. Even a brief glance at the far-reaching work which is being quietly performed under direction of the Commissioner of Agriculture will convince every patriotic citizen, whatever his calling, that it is his duty to assist, as within his power lies, in the continuance and growth of this magnificent endeavor to promote the happiness of the human family.

The Stock-Raising Industry in Remote Antiquity.

Live-Stock Animals of the Egyptians and of Other Ancient Peoples of the East.—Animal Worship in their Religions.—"Cattle" Among Hebrew People, and in their Legends and Traditions.—The Great Hebrew Stockmen of Olden Times.—Jacob's Transactions in Live Stock.—Laws of the Ancient Babylonian Empire Relating to the Industry.—Commanding Influences of the Pastoral Life Upon the Progress of the Human Race.

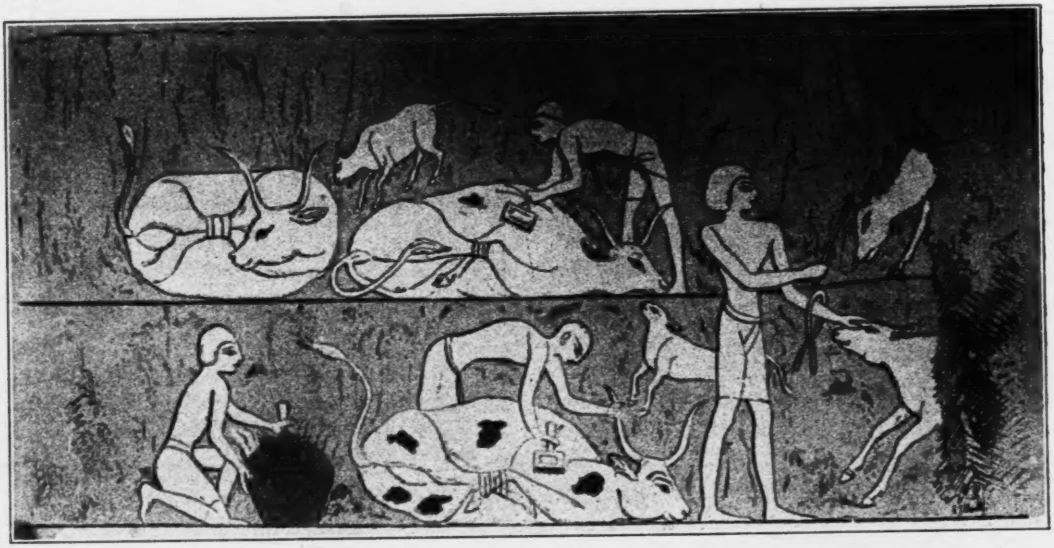
Egypt, from the very dawn of her known history (5004 B. C.), appears to have had sheep, goats, swine, cattle, and asses, among her domesticated animals; but, strange as it may seem, the horse was unknown there, as it was in Arabia, until after the Hyksos' conquest of the Nile country (about 2100 B. C.). In what is told to us in Genesis xii. of Abram's course with relation to his wife, and of the Pharaoh's desire to retain her in his harem, horses, goats, and swine are not included among the live stock said to have been possessed by the Egyptian monarch. "And he entreated Abram well for her sake: and he had sheep, and oxen and he-asses, and men-servants, and maid-servants, and she-asses, and camels." The horse, as we shall see presently, was in use in the not far-distant Mesopotamian countries, for military purposes at least, earlier than 3800 B. C. This makes it all the more singular that the animal should have remained so long unknown in Egypt and in Arabia; for it is such an eminently useful creature, not only in peaceful pursuits, but in war, that one would suppose it would have been introduced into these countries at the beginning of international intercourse between the ancient peoples in that part of the world.

Both before and after the introduction of horses the beasts of burden used by the ancient Egyptians were asses, cattle, and camels; oxen also being the principal draft animals, doing about all of the plowing. Horses, which were carefully bred from the time of their introduction, appear to have been generally regarded as too noble, and perhaps as too valuable, commonly to be used for such purposes. While there are not many representations of Egyptian civilians on horseback, the animals were so employed by men of the upper classes, but more frequently by these to draw curricles (two-wheeled carriages) and chariots. Farmers are said to have made use of them occasionally to draw the plow—perhaps in times of emergency, for this never became anything like a custom, and upon the whole it is clear that the connection of horses with Egyptian agriculture and other ordinary occupations was but slight. Immense numbers of them were required and kept for the war chariots that formed so important an element in the military forces, and for the cavalry there were usually about as many more. The animals seem not to have been allowed to graze in the fields, but to have been kept exclusively in stables and fed on corn and barley.

Though Egypt was in the main an agricultural rather than a pastoral country, yet the breeding and rearing of cattle, sheep, goats, swine, and asses was everywhere a part of the farmers' business from the period of the country's earliest known history, and in some districts almost exclusively occupied their attention. Large tracts in the Delta were too wet for the growth of grain, and upon these cattle were grazed in vast numbers by "the marshmen," as these Egyptian cowboys were called, and who were hardy, but rude and lawless people, who inhabited the more northern parts of Egypt in the vicinity of the great lakes. Elsewhere, too, cattle were reared, partly for agricultural work, as plowing, treading in the grain at seeding-time, and treading it out after the harvest; partly for other draft purposes, and partly also for the table; beef and veal being common articles of food. The ancient Egyptians had three distinct varieties of straight-backed cattle—the long-horned, the short-horned, and the hornless; and they also possessed a considerable number of India, or hump-backed, cattle. During the greater part of the year the farm cattle were pastured in the open fields upon the natural growths from the rich soil, or on cultivated grasses which were grown for the purpose; but at the time of the annual inundation of the country by the Nile it was necessary to bring the stock in from the fields to the farm-yards, or into the villages, where they were kept in sheds or pens on ground artificially raised, so as to be beyond the reach of the river. At times, when there was a sudden rise in the water, as occasionally happened, much difficulty was experienced in the removal of the animals from the flooded fields to their high-water refuges, the monuments presenting numerous representations of the scenes which occurred on such occasions—scenes of a most exciting character. As the water overflows the pastures the peasants appear, hurrying to the fields on foot or in boats, intent on rescuing their menaced live stock. Some, tying their clothes upon their heads, drag the sheep and goats from the water and put them into boats; others swim the cattle to the nearest higher ground, where other men drive them toward the larger vessels, which have come to save them; nooses being thrown over the animals' horns or heads in regular cowboy fashion, by which they are drawn toward their rescuers. For some months from this time the whole of the cattle in Egypt were fed in stalls, partly on wheat-straw and partly on hay made from grasses cultivated for the purpose. They passed the night in sheds, and were tethered during the day in straw-yards, where their wants received every attention. Sick cattle had medical treatment, drugs being administered to them in balls, which were forced down their throats, as is done in modern veterinary practice. In the Delta and in some other parts of Egypt herds of cattle grazed upon common pastures—on open ranges, and so, as well as in other ways, were liable to become intermingled. Therefore, these ancient stockmen had to protect themselves against loss by putting a mark upon their beasts—by branding them, just as our Western stockmen brand their cattle. After having their legs roped the animals were thrown down and branded with a hot iron upon their shoulders. Paintings in tombs at Thebes—probably the tombs of noted stockmen—exhibit this process in detail, showing the heating of the iron at a fire, its application to the prostrate cows, and the distress of the calves at the struggles of their mothers, and from the violence and uproar of the proceedings. The cattle "rustler," the arch enemy of our Western cattlemen, is by no means a modern character, for he was abroad in the land of Egypt in far-off antiquity; the marshmen of the Delta being much addicted to the practice of adding to their holdings by "rustling" stock from farmers on the border of the wet country they occupied.

Egyptian War Horse, Chariot, and Warriors.
(From Smith's "Bible Dictionary.")

Many of the ancient Egyptian farmer stock-raisers had large herds, droves, and flocks. Upon the tomb of one individual it was recorded that he had been the owner of 834 oxen, 220 cows, 2,234 goats, 760 asses, and 974 sheep—a stockman of very creditable dimensions. The India, or humped, cattle are represented upon the monuments in such a way as to imply that they were bred in considerable number by the Egyptian farmers, and used largely both for sacrifice and



Ancient Egyptian Cowboys Branding Cattle.
(From Houghton's "Natural History of the Ancients.")

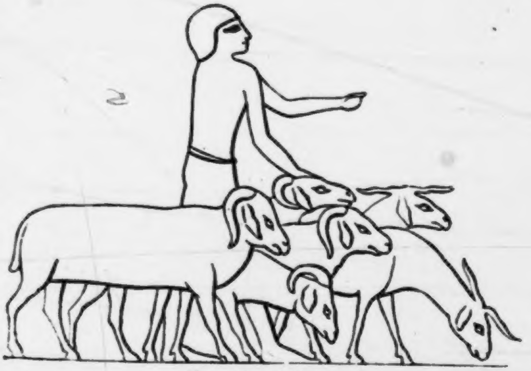
for the table. The ass appears to have been known in Egypt and used as the chief beast of burden there from a very remote antiquity; the Egyptian variety being a small animal, but active and capable of enduring much fatigue. Large herds of them were enumerated among the possessions of great land-owners as far back as the fifth and sixth dynasties (3721–3503 B. C.). Sheep were but seldom killed for food, and but little mutton was eaten by the ancient Egyptians, for in most parts of the country it was unlawful to eat the flesh of sheep. They were kept mainly for the sake of their wool, and are said to have yielded two fleeces each year and also to have produced lambs twice—which would cause the increase of the flocks to be rapid. It is uncertain for what general purpose goats were kept. They were occasionally sacrificed, and therefore, no doubt, sometimes were eaten; but these practices do not seem to have been frequent, and do not account for the large number that was bred and reared. Perhaps their milk was an article of diet, and their hair may have been used, as it is said to have been by the Israelites when they departed from Egypt, in the manufacture of certain fabrics, as tent-coverings and the like. The Egyptian goats are not, however, represented as long-haired. It is certain that many swine were bred and reared in Egypt in ancient times, since the swineherds were sufficiently numerous to form one of the organized classes into which the population was divided. According to Herodotus, there were occasions upon which the Egyptians were bound to sacrifice pigs, and once a year each Egyptian partook of the flesh; but otherwise the animals and their flesh were regarded as utterly unclean, and pork was a forbidden food; beef and veal, not pork and mutton, being the principal meats that appeared upon an Egyptian's table. The aversion extended to the swineherds, who were disliked and despised by all other classes. As in the case of the goat, it is difficult to account for the large number of swine reared by these ancient people, although it may have been that pork, notwithstanding that it was forbidden by the ordinances of the religion, was eaten by many of the low peasant class, who had nothing to lose in social rank, were free from religious prejudices, and found the meat palatable and savory. The Egyptian pig, if we may trust its representations upon the monuments, was a hideous-looking animal, long-legged and long-necked, covered with rough hair, and with a mane of bristles along the neck and back. The full-grown hogs were especially ugly, but the worst features were somewhat modified in the sows.

Notwithstanding the great importance of

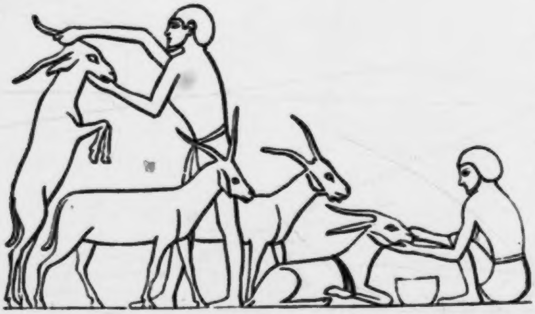
stock-raising to their country, the upper and the ruling classes of ancient Egypt regarded shepherds and herdsmen with great disdain; and the hatred of the memory of the Hyksos conquerors and rulers, expressed in many records made in later times, largely was due to the pastoral character of these invader people.

Among the creatures to which the Egyptians attributed an especially sacred character were the bull, the ram, and the ass. The bull was worshiped, not because he was a bull, but because he was made the host of one of the three personifications of their great sun-god. Their conception of Osiris as the Dweller among men and the Sharer of the commonness and of the materiality of their life on earth was worshiped in the form of a bull—the Apis, in which shape the pure soul of the god was believed constantly to haunt the earth, passing from the body of one bull to that of another upon the death of the animal; but never abandoning the land of his choice, nor depriving his faithful worshipers of his visible presence among them. Osiris was represented in the Egyptian zodiac by the bull—the Taurus constellation so familiar to us; and Isis, his sister-wife-queen, who, in some respects, was identified with the moon, was figured in the zodiac in the form of a calf. Upon the ram, however, was bestowed a still greater distinction. Atum (Amun, or Amon) was their concealed Creator of all things, the "Dweller in Eternity," who was before all, and into whose bosom all creatures and all other gods should return in the lapse of ages. The figure under which they represented and worshiped this their oldest and most venerable deity was that of a man's body with the head and horns of a ram—the word "ram" in the Egyptian language meaning "concealment." The ass was made the representative of Seth (Set, or Sutech), a subordinate sun-god who, in the earlier conception of him, symbolized the destructive power of the sun's heat in summer, and who was also a god of war, victory, and conquest. He was worshiped in the form of a man's body, having an ass's head.

From an unknown antiquity the ancient peoples of the Mesopotamian region possessed many goats, sheep, cattle, horses, and asses; and some swine, also. The tablets of King Sargon I., of Accad (3800 B. C.), in whose royal seal a pair of bulls with immense horns are the most conspicuous figures, tell of successful military expeditions in brazen chariots drawn by horses over rugged lands to distant countries in the West. The religion of those two great Semitic nations, the Assyrians and the Babylonians, directed their worship chiefly to the heavenly bodies, and therefore had less of earthly incident and character than that of the Egyptians. But, as in the religious theories and practices of other peoples of antiquity, the bull and the ram occupied high places in their beliefs; the Assyrians having raised them to positions of great significance and dignity. Their huge man-headed winged bulls, the "Cherubim," of which there were so many sculptured in stone and shown in low relief, were a kind of glorified sphinxes that were placed at gateways, temple portals, and the like, in the positions and attitudes of guardians and protectors. The ram appears to have been associated with their god of the planet, Saturn, which was the highest and the outermost one known to them, and therefore believed by them to be the oldest of the planets. This god was their tutelary deity, and owing to the remote and lofty position of his planetary abode was held to be "the most high god"—a form of expression that has been transmitted to us through the old Hebrew books.


Egyptian Sheep.
(*From Rawlinson's "Ancient Egypt."*)

In what has been said on preceding pages concerning the pastoral stage in the advancement of mankind we have dealt chiefly with what would seem to have been the patriarchal life of our remote Aryan ancestors; but that life was even more characteristic of the Semitic race. Most of the Semitics of antiquity were essentially pastoral and nomadic, and continued to be so much longer than the Aryan peoples. In western Asia at the present time there are many of their descendants who still retain their tribal or clannish form of social organization, and wander to and fro with their flocks and herds. The history and achievements of one branch of that race have been of absorbing interest and supreme significance to untold millions of humanity, and are still so to a large part of the people of the earth.



Egyptian Goats under treatment by Veterinary Surgeons.
(From Rawlinson's "Ancient Egypt.")

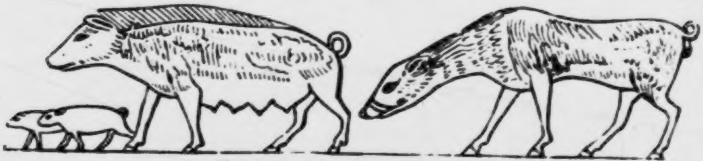
Of all ancient nations the Hebrews have been made the most familiar to us, but their history, as history is known now, does not extend far into antiquity; for they did not become an independent branch of the Semitic peoples until a comparatively late period in the career of that race. Long after the Assyrians and Babylonians had risen to great power and influence, and after the Egyptians had attained, or perhaps passed, the zenith of their national glory, the Hebrews with their "cattle" are represented in the twilight of their history as wandering in tribes and clans, or sojourning in nomadic families about the borders of these old empires.

No people of antiquity are so intimately associated in our thoughts and conceptions of the old pastoral life as are the ancient Hebrews, and our speech and literature teem with words and phrases derived from their Old Testament, and identified with that life; and, furthermore, from that source we have learned—though we may be in error—to regard them as the great stockmen of olden times.

In the earlier period of their history the Hebrews had sheep, goats, cattle, and asses, but neither horses nor swine. In later times they acquired the horse, but, although the pig was then common in the Palestinean region, he was outlawed by them. In the earlier period, and as among other peoples of that part of the world, the bull and the ram were mysteriously identified with their religious beliefs and practices, and were the preferable, if not the imperatively required, animals of sacrifice to their deity. For this purpose they were slaughtered in great numbers and without regard to their value to the people; a practice that was continued by many generations, and long after the Lord was represented to have declared that He loved justice and mercy better than the blood of bulls and rams. The demands upon herds and flocks for such sacrifices must have been burdensome, and in comparison with losses due to the depredations of the modern-time "rustler" on our ranges, would seem to make the operations of the latter rather trivial diversions. Baal, the supreme male divinity of the ancient Phœnician and Canaanitish peoples, usually was figured with the head of a bull. He was known by different names among the various "nations," and there can be no rational doubt of the very high antiquity of this form of sun-worship. After the Mosaic Hebrews entered Palestine most of them embraced this religion, and it prevailed extensively among them for hundreds of years; and, although attempts occasionally were made to suppress it, it appears never to have been permanently abolished among these people prior to the beginning of our era. Its most frightful rite in the earlier period consisted of sacrificing

Seal of King Sargon I. of Accad.
(Note the immense horns of these bulls.)
(From Laing's "Human Origins.")

children to the god by slowly burning them alive; myriads of them being thus immolated. The Hebrews gave the goat a peculiar distinction—that of becoming the scape-goat to be sent away into the wilderness, bearing upon his back all the iniquities of the children of Israel unto a land not inhabited. The ass appears to have been known to all Semitic peoples, as to those of Egypt, from immemorial time, but not so to the Aryans, all of whose names for it were borrowed from the Semitic languages. Nearly all of the references to the horse in the Old Testament are associated with his adaptability to, and usefulness in, military enterprises. In Job xxxix : 19-25 we have a very fine description of the "war-horse." In Proverbs xxi:31 we are told that "the horse is prepared against the day of battle: but safety is of the Lord"; and in Jeremiah viii:6 it is said that every one of the unrepentant Jews "turned to his course, as the horse rusheth into the battle." Deuteronomy xvii:16 commands that the king which the Lord may set over the Hebrews "shall not multiply horses to himself, nor cause the people to return to Egypt, to the end that he should multiply horses"; which, probably, was intended to keep the king from entering upon ambitious schemes of conquest. In Psalm xxxiii:17 it is said that "an horse is a vain thing for safety: neither shall he deliver any by his great strength"; and in cxlvii:10 that the Lord "delighteth not in the strength of the horse." As already remarked, the pig was outlawed by the Hebrews. In the books of the law they are forbidden to eat of his flesh or touch his "unclean carcase," and in Isaiah lxv:4 the rebellious Jews, who had continually provoked the Lord to anger, are charged with having among their many sins, committed the intolerable offense of eating swine's flesh.


Egyptian Pigs, Sow and Hog.
(From Rawlinson's "Ancient Egypt.")

The ordinarily accepted history of the Hebrews throws the beginning of pastoral life back next to the very "beginning" of our world itself, and makes the second man born of a woman the first of all of the millions of live stock men who have dwelt upon the earth.

" * * * And Abel was a keeper of sheep, but Cain was a tiller of the ground. And in process of time it came to pass, that Cain brought of the fruit of the ground an offering unto the Lord. And Abel, he also brought of the firstlings of his flock and of the fat thereof. And the Lord had respect unto Abel and to his offering: but unto Cain and to his offering he had not respect And Cain was very wroth, and his countenance fell."—Genesis iv:2-5.

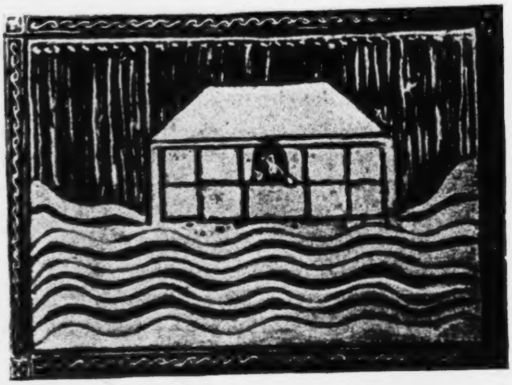
Another hero of Hebrew antiquity to whom all stockmen may point with justifiable pride is Noah, the only man who found grace in the eyes of the Lord when the most tremendous calamity that ever befell the human race and its fellow-creatures was impending.

"And God saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually. And it repented the Lord that he had made man on the earth, and it grieved him at his heart. And the Lord said, I will destroy man whom I have created from the face of the earth; both man and beast, and the creeping thing, and the fowls of the air; for it repenteth me that I have made them. But Noah found grace in the eyes of the Lord."—Genesis vi:5-8.

Noah set sail early in the year 2349 B. C., and roved in his boat for many months over a new and tumultuous waste of waters that enveloped the whole earth; and finally landed his precious cargo without having lost a single creature of the vast multitude that constituted it. Thus, through his worthiness as a man, by his skill and courage as a navigator, and by his resourcefulness as a caretaker, the live-stock industry—and some others—was saved from extinction. Withdrawing from a sea-faring life upon the termination of his voyage, he began to be an husbandman," and so remained at least a half-brother to the stockman.

According to the Hebrew record, neither of

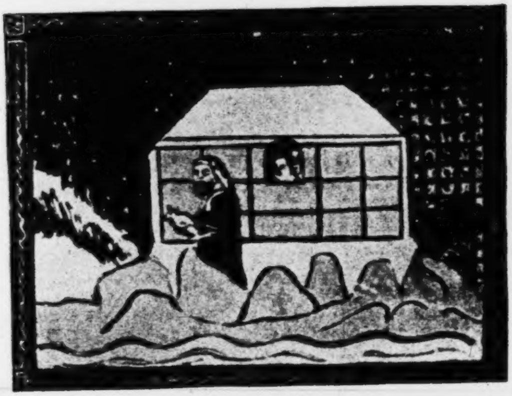
Noah's three sons betrayed any inclination to follow the example of their father by becoming sea-faring men. Two of them soon drop out of the story, but the more distinguished Shem became a dweller in tents; or, in other words, resumed the pastoral life that had been so disastrously interrupted and overwhelmed by the flood. Beside having thus re-established the live-stock industry, he was "the father of all the children of Eber" (the Hebrews), and therefore the founder of a long line of live stock men.



The Ark of Noah Afloat.
(*From the "Sarajevoh Haggadah."—Talmud.*)

Then Abraham, a prince among the early stockmen, is brought from "Ur of the Chaldees," with his dependents and herds and flocks, and made to wander into the background of a new, but dim, vista that is opened to our sight. We are told that when he returned from his expedition into Egypt "he was very rich in cattle, in silver, and in gold"; and that soon afterward he and his nephew, Lot, who also "had flocks and herds, and tents," had to separate because their live stock had become too great in number longer to graze together in the same district. After many remarkable experiences and adventures while roaming in and out of the land to which he laid claim, Abraham is gathered to his fathers, and is succeeded by his son, Isaac, who also "had much cattle." To Isaac is born Jacob, a picturesque and most interesting figure, who became a stockman of great renown. Long after the other inhabitants of the Palestinean region had established permanent towns these Hebrew tribes roamed over the intervening plains, dwelling in tents, depending for food and clothing upon their cattle, sheep, goats, and camels, and leading a simple pastoral life under an equally simple patriarchal social organization, much as do the wandering Arabs of the present day.

No more interesting stories have been handed down to us from antiquity than some of those told in the biblical history of the Hebrew people. Among these is one of exceptional interest in connection with the general purpose of this work; the account of Jacob's transactions in live stock with his father-in-law, Laban. The manner in which Laban is said to have "beguiled" Jacob, making him take Leah "to wife" instead of Rachel, for whom he had served Laban seven years, and by requiring him to serve yet another seven years for Rachel, and the measures taken in reprisal by the son-in-law, show plainly that the seamy side of human nature had already passed through its various lower stages of evolution and had attained a high development at an early day. No outline or summary of the story would do it justice, and, although it is a familiar one, it easily will bear retelling:

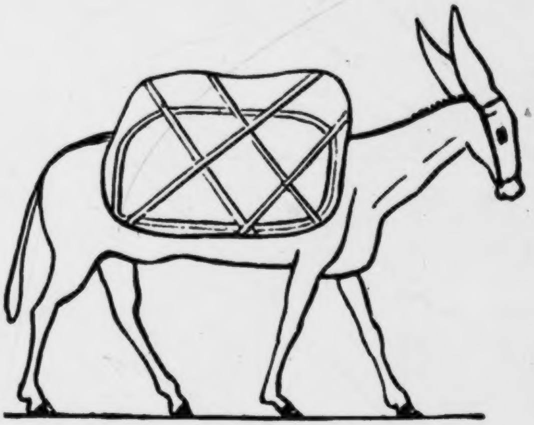


The Ark Resting on Mt. Ararat.
(*From the "Sarajevoh Haggadah."—Talmud.*)

"And it came to pass, when Rachel had born Joseph, that Jacob said unto Laban, Send me away, that I may go unto mine own place, and to my country. Give me my wives and my children, for whom I have served thee, and let me go: for thou knowest my service which I have done thee. And Laban said unto him, I pray thee, if I have found favor in thine eyes, tarry: for I have learned by experience that the Lord hath blessed me for thy sake. And he said, Appoint me thy wages, and I will give it. And he said unto him, Thou knowest how I have served thee, and how thy cattle was with me. For it was little which thou hadst before I came, and it is now increased unto a multitude; and the Lord hath blessed thee since my coming: and now when shall I provide for mine own house also? And he said, What shall I give thee? And Jacob said, Thou shalt not give me anything; if thou wilt do this for me, I will again feed and keep thy flock: I will pass through all thy flock to-day, removing from thence all the speckled and spotted cattle, and all the brown cattle among the sheep, and the spotted and speckled among the goats; and of such shall be my hire. So shall my righteousness answer for me in time to come, when it shall come for my hire before thy face: every one that is not speckled and spotted among the goats, and brown among the sheep, that shall be counted stolen with me. And Laban said, Behold, I would it might be according to thy word. And he removed that day the he goats that were ringstraked and spotted, and all the she goats that were speckled and spotted, and every one that had some white in it, and all the brown among the sheep, and gave them into the hand of his sons. And he set three days journey betwixt himself and Jacob; and Jacob fed the rest of Laban's flocks."—Genesis xxx:25-36.

The methods said to have been employed by Jacob to enrich himself at the expense of Laban imply that men had knowledge in far antiquity of the effects of certain external pre-natal influences upon mammals, and that they knew that such influences could be utilized by them to produce minor variations in breeds of animals.

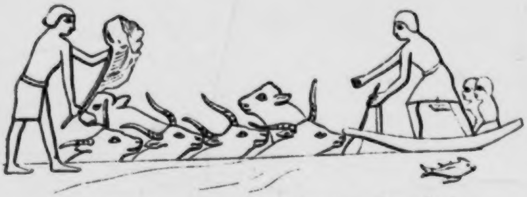
"And Jacob took him rods of green poplar, and of the hazel and chestnut tree; and pilled white strakes in them, and made the white appear which was in the rods. And he set the rods which he had pilled before the flocks in the gutters in the watering troughs when the flocks came to drink, that they should conceive when they came to drink. And the flocks conceived before the rods, and brought forth cattle ringstraked, speckled, and spotted. And Jacob did separate the lambs, and set the faces of the flocks toward the ringstraked, and all the brown in the flock of Laban; and he put his own flocks by themselves, and put them not unto Laban's cattle. And it came to pass, whensoever the stronger cattle did conceive, that Jacob laid the rods before the eyes of the cattle in the gutters, that they might conceive among the rods. But when the cattle were feeble, he put them not in: so the feebler were Laban's, and the stronger Jacob's. And the man increased exceedingly, and had much cattle, and maidservants, and menservants, and camels, and asses."—Genesis xxx:37-43.



Egyptian Pack-bearing Ass.
(*From Rawlinson's "Ancient Egypt."*)

Jacob's astonishing prosperity on the range, caused the sons of Laban to rise in indignation and denounce him; and it changed the countenance of Laban toward him. But Jacob explained and justified what had happened by asserting that it was the result of the Lord's special intervention in his behalf:

"And he heard the words of Laban's sons, saying, Jacob hath taken away all that was our father's; and of that which was our father's hath he gotten all this glory.* And Jacob beheld the countenance of Laban, and, behold, it was not toward him as before. And the Lord said unto Jacob, Return unto the land of thy fathers, and to thy kindred; and I will be with thee. And Jacob sent and called Rachel and Leah to the field unto his flock, and said unto them, I see your father's countenance, that it is not toward me as before; but the god of my father hath been with me. And ye know that with all my power I have served your father. And your father hath deceived me, and changed my wages ten times; but God suffered him not to hurt me. If he said thus, The speckled shall be thy wages; then all the cattle bare speckled: and if he said thus, The ringstraked shall be thy hire; then bare all the cattle ringstraked. Thus God hath taken away the cattle of your father, and given them to me. And it came to pass at the time that the cattle conceived, that I lifted up mine eyes, and saw in a dream, and, behold, the rams which leaped upon the cattle were ringstraked, speckled and grisled. And the angel of God spake unto me in a dream, saying, Jacob: And I said, Here am I. And he said, Lift up now thine eyes, and see, all the rams which leap upon the cattle are ringstraked, speckled and grisled: for I have seen all that Laban doeth unto thee. I am the God of Beth-el, where thou anointedst the pillar, and where thou vowedst a vow unto me: now arise, get thee out from this land, and return unto the land of thy kindred."—Genesis xxxi:1-13.



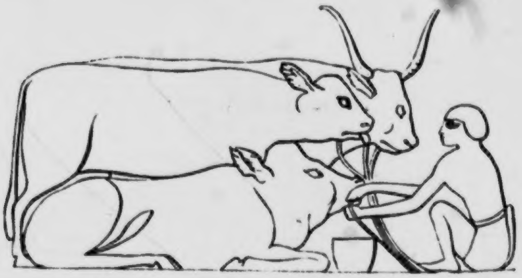
Egyptians Rescuing Cattle from an Inundation.
(From Rawlinson's "Ancient Egypt.")

Turning to the oldest known code of laws in the world, that of a powerful ancient Asiatic nation, which code was in effect but little more than half a century later than the year assigned to the Deluge in our biblical chronology (2349 B. C.), and which was based upon accumulated judicial decisions that had dealt with questions of right and wrong through still earlier ages, we shall find that the live-stock industry was already so old in that period that transactions connected with it and growing out of it were explicitly regulated by law.

Late in 1901 there was exhumed on the site of the old Elamite city of Susa (the Shushan of the Hebrew book of Esther), a large stone monument about eight feet high, on which are inscribed in cuneiform characters the laws of Hammurabi, the most illustrious king of the first dynasty of Babylon, and the real founder of the united Babylonian empire, who reigned 2285-2242 B. C., and who was the Amraphel of Genesis xiv:1. On one part of the monolith is a representation of the great king receiving his laws in person from the seated sun-god, Samas, "the judge of heaven and earth." This monument, though somewhat defaced, is the most remarkable and valuable authentic document relating to the ancient history of the human race that the world now possesses; and it is as authentic, historically, as is the Constitution of the United States. It towers above the cloud of myth and legend that obscures history in the old Hebrew books, and reveals the existence in the third millennium B. C. of a Babylonian civilization comparable in many respects with our own, and governed by laws in which are incorporated some provisions that even are in advance of our own.

Cattle and sheep, judging from the many references in the code respecting them, appear to have been the more important of the domestic animals in the every-day life of the people of Babylonia in that period. Of the 247 legible sections of the code inscribed on the monument, above one-seventh refer directly or indirectly to cattle and sheep, and to the live-stock industry; and in the whole there are many things that throw a glare of light upon that old-time life, and enable us to see that in some respects it was not greatly unlike our own.

In that distant period the occupation of the herdsman, or "cowboy," and that of his brother, the shepherd, were already old and well established among the callings of workingmen. The matter of the compensation of herdsmen and shepherds was made the subject of a separate section of the code. Elsewhere the code specifies the wages to be paid to men employed in various industrial pursuits, but makes some distinction between the artisan class and the herdsmen. For the former, days' wages were fixed and were payable in silver money; while the latter were hired by the year and were to be paid in units of "corn"—that is, wheat, barley, or other grain of which bread was made. However, it may be presumed that no objection existed to paying the herdsmen and the shepherds the value of the corn in money. Section 261 says:



Egyptian Veterinary Surgeon Dosing Sick Cattle. Two of the Animals are Hornless.
(*From Rawlinson's "Ancient Egypt."*)

"If a man has hired a herdsman for the cows or a shepherd for the sheep, he shall give eight *gur* of corn per annum."

This measure, the *gur*, was divided into 300 "*ka*," in the manner in which our bushel is divided into thirty-two quarts or four pecks, and was worth one "*shekel*" of silver. The *shekel* was the equivalent of 180 "*se*," in the way that our dollar equals 100 cents. Lacking definite knowledge of the value in our money of the Babylonian *shekel* of silver in Hammurabi's time, it is only by an indirect method that we may ascertain approximately the relation the pay of cowboys and shepherds bore to the wages of other workingmen in Babylonia [illegible],200 years ago, and gain also some idea of the value of cattle at that time.

For examples among artisans, the "hire" of a stonecutter was five *se per diem;* of a brickmaker (which probably also meant a bricklayer), and of a tailor, the same; but a carpenter stood lower in the scale, his daily pay being four *se*. A class designated as "laborers" ranked higher than the artisans, being employed by the year at a daily wage of six *se* for the first five months and five for the remaining seven months. Under this scale of wages the stonecutters, brickmakers, and tailors would earn a *gur* of corn by thirty-six days' work; the carpenter by forty-five days' work; while the laborer, whatever may have been his business, would average a little better than the stonecutters, brickmakers, and tailors. Assuming that these artisans worked every day in the year except Sunday (which was rigidly observed as a day of rest in Babylonia in that period, as it had been for many generations), each would earn in the 312 work-days 1,560 *se;* and as 180 *se* equaled the value of a *gur* of corn, his earnings in a year would have bought 8⅔ *gurs* of grain; or ⅔ of a *gur* more than a year's wages for a herdsman or a shepherd, to whom, furthermore, from the necessities of his occupation, the day of rest could not apply as it did to the others.

There is nothing in this old king's code from which may learn directly the market prices of Babylonian live-stock in his time, but they must have been rather high if the values he fixed for the use of certain hired animals may be taken as suggestive of market prices. A comparison of

Assyrian Gigantic Man-headed Winged Bull—the "Cherub."
(*From Delitzsch's "Babel and Bible."*)

the wages of workingmen with the "hire" of an ox, or of a cow in milk (the renter, presumably, to feed and otherwise care for the animal), yields some rather striking results. Sections 242 and 243 of the code provide:

"If a man has hired a working ox for one year he shall pay four *gur* of corn as its hire."

"If a milk-cow he shall give three *gur* of corn to its owner."

According to these arrangements, the services of a working ox were worth half as much as those of a herdsman or of a shepherd, and within a fraction of half as much as those of skilled artisans; while a cow, hired, it is to be supposed, only for the sake of the milk she should give, brought her owner a rental of more than one-third of the amount a mechanic would earn. Some other established rates of hire for animals are equally interesting. Sections 268-271, inclusive, read:

Upper Panel—Assyrian War Horses, Chariots and Warriors. Lower Panel—Captives in the Hands of Assyrians.
(From Delitzsch's "Babel and Bible.")

"If a man has hired an ox for threshing, twenty *ka* of corn is its hire."

"If he has hired an ass for threshing, ten *ka* of corn is its hire."

"If he has hired a calf for threshing, one *ka* of corn is its hire."

"If a man has hired oxen, a wagon, and its driver, he shall give 180 *ka* of corn *per diem*."

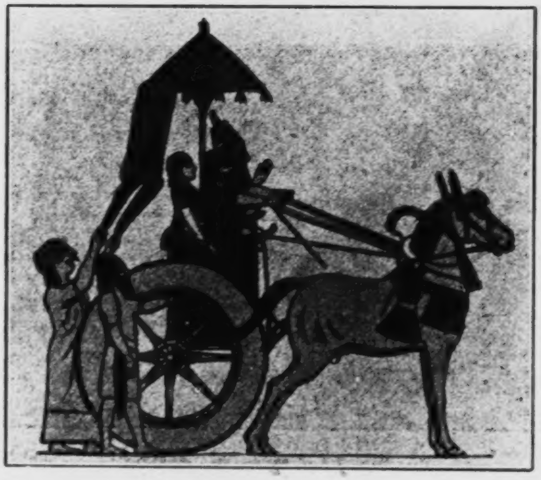
While the first three of these do not say in terms that the hire fixed is for one day's service in the special and important work of tramping out grain, the "*per diem*" of the fourth would seem to make it rather clear that that is meant for all; and this conclusion is supported further by the language of the next section (272), which says:

"If a man has hired a wagon by itself he shall give forty *ka* of corn *per diem*."

This left 140 *ka* for the hire of the driver and the oxen; but we do not know how many oxen constituted the team, nor can we tell how much was allowed for the driver when hired by the day. Another section makes the compensation of an ox-driver six *gur* of corn per year. But if the specified hire of animals used for threshing is a *per diem* rate, as it appears to be, and as a *gur* contained 300 *ka*, an ox earned one *gur* of corn by fifteen days' work, which would make his daily hire for not very laborious service more than two and one-half times the pay of a herdsman or of a shepherd; a trifle less than two and one-half times that of a stonecutter, or of a brickmaker, or of a tailor; and three times that of a carpenter. The ass did half as well as the ox, but considerably better than the workingmen; and even the calf would seem to have earned relatively more than his share, in comparison with the wages of men. However, while it may be that these rates were for the threshing season, it is to be remembered that in that age of the world, among even civilized nations, the "common man" was held in light esteem, and probably was the cheapest of all useful domesticated creatures.

The duties, responsibilities, and liabilities of the cowboy and of the sheepman of Hammurabi's time were very sharply defined in the laws promulgated by this old king, who professed possession of "great wisdom," and the provisions of his code respecting them will, no doubt, be of much interest to the sheepmen and cowboys of our own times. Sections 57 and 58, and 263-267, inclusive, say:

"If a shepherd has caused the sheep to feed on the green corn, has not come to an agreement with the owner of the field, without the consent of the owner of the field has made the sheep to feed off the field, the owner shall reap his fields, the shepherd who without consent of the owner of the field has fed off the field with sheep shall give over and above twenty *gur* of corn per *gan* [a measure of land] to the owner of the field."



Assyrian King's Chariot.
(*From Houghton's "Natural History of the Ancients."*)

"If from the time the sheep have gone up from the meadow, and the whole flock has passed through the gate, the shepherd has laid his sheep on the field and has caused his sheep to feed off the field, the shepherd who has made them feed off the field one shall watch, and at harvest time he shall measure out sixty *gur* of corn per *gan* to the owner of the field."

"If he has caused an ox or a sheep which was given him to be lost, ox for ox, sheep for sheep, he shall render to their owner."

"If a herdsman who has had cows or sheep given him to shepherd, has received his hire, whatever was agreed, and his heart was contented, has diminished the cows, diminished the sheep, lessened the offspring, he shall give offspring and produce according to the tenor of his bonds."

"If a shepherd to whom cows and sheep have been given him to breed, has falsified and changed their price, or has sold them, one shall put him to account, and he shall render cows and sheep to their owner tenfold what he has stolen."

"If in a sheepfold a stroke of God [lightning or storm] has taken place or a lion has killed, the shepherd shall purge himself before God [state the facts under oath], and the accident to the fold the owner of the fold shall face it."

"If a shepherd has been careless and in a sheepfold caused a loss to take place, the shepherd shall make good the fault of the loss which he has caused to be in the fold and shall pay cows or sheep and shall give to their owner."

No penalties for cruelties to animals, as such, are provided in the code, but several sections (241-249) are explicit as to the responsibilities of a man who has hired an ox, and by his neglect or abuse of it, caused its injury or death:

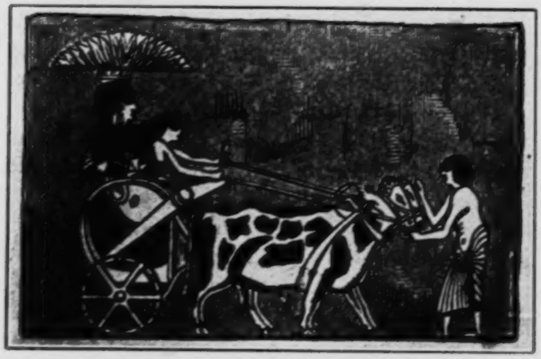
"If a man has hired an ox or a sheep and a lion has killed it in the open field, that is loss for its owner forsooth."

"If a man has hired an ox and through neglect or by blows has caused it to die, ox for ox to the owner of the ox he shall render."

"If a man has hired an ox and has crushed its foot or has cut its nape, ox for ox to the owner of the ox he shall render."

"If a man has hired an ox and has caused it to lose its eye, he shall pay half its price to the owner of the ox."

"If a man has hired an ox, and has crushed its horn, cut off its tail, or pierced its nostrils, he shall pay a quarter of its price."



Assyrian Queen's Chariot, drawn by Polled Cattle.
(*From Houghton's "Natural History of the Ancients."*)

"If a man has hired an ox, and God has stuck it and it has died, the man who has hired the ox shall swear before God and shall go free."

The wild or vicious male bovine made trouble in those times just as he does in our own, and is the central figure in Sections 250-252 of these laws:

"If a wild bull in his charge has gored a man and caused him to die, that case has no remedy."

"If the ox has pushed [gored] a man, by pushing has made known his vice, and he [the owner] has not blunted his horn, has not shut up his ox, and that ox has gored a man of gentle birth and caused him to die, he shall pay half a *mina* of silver."

"If a gentleman's servant, he shall pay one-third of a *mina* of silver."

The amount to be paid in a case wherein a "common man" was the victim doth not appear.

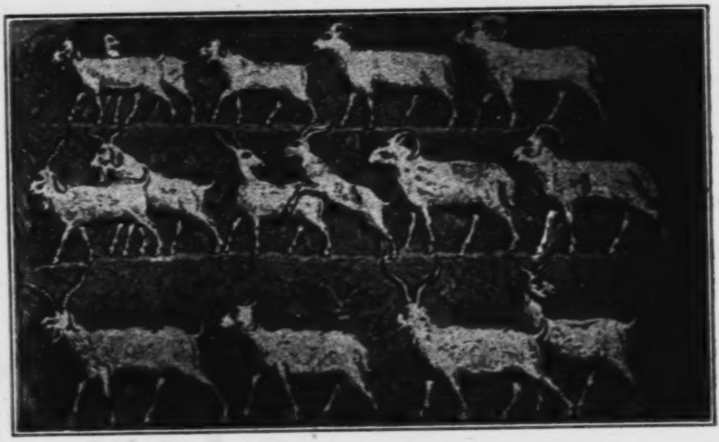
We are hardly prepared to meet professional cow and sheep doctors—veterinary surgeons—in that remote period, but they were there, and had been there long enough to have their charges and responsibilities fixed by law. Sections 224 and 225 of the code say:

"If a cow doctor or a sheep doctor has treated a cow or a sheep for a severe wound and cured it, the owner of the cow or sheep shall give one-sixth of a *shekel* of silver to the doctor as his fee."

"If he has treated a cow or a sheep for a severe wound and has caused it to die, he shall give a quarter of its price to the owner of the ox or sheep."

As already remarked, cattle and sheep appear to have been the more important of the domestic animals in the daily life of the people of ancient Babylonia, although the country also possessed horses, asses, goats, and swine. It is, however, a remarkable fact that the horse is nowhere referred to in Hammurabi's code, which is also silent as to the goat. Among the few references to the ass there is none that implies for it a high esteem as compared to that in which cattle and sheep appear to have been held; and the pig is mentioned but once. It may have been that for the purposes of the law goats were understood to be included in its provisions with respect to sheep. As to horses, it is probable that their use rigidly was restricted to the autocratic monarch and his retinue, and to war purposes; and therefore that they were not permitted to be possessed by any of the general population, nor used in the affairs and occupations of civil life. We have seen that the Egyptians, who did not acquire horses until a later period, held them almost exclusively for use in military operations, and that the old Hebrew writers generally associated these animals with war and conquest. The code's single reference to the pig would seem to imply that that animal was not common in Babylonia in Hammurabi's time, and as the Babylonians were Semitics, it is probable that pork was not eaten by them, and that the pig, therefore, could be of little practical utility to them. Inasmuch as the allusion places it among the properties of the great temple of worship, and of the king's palace—to all belongings of which establishments a more or less sacred character was attributed—the principal duty of the pig in Babylonia may have been similar to one use to which he was put in Egypt—that of serving as a sacrifice of some peculiar significance to the gods. At all events, the following (Section 8) is all that Hammurabi's code has to say about him:

"If a man has stolen ox or sheep or ass, or pig, or ship, whether from the temple or the pal-



Assyrian Sheep and Goats.
(From Houghton's "Natural History of the Ancients.")

ace, he shall pay thirtyfold. If he be a poor man, he shall render tenfold. If the thief has naught to pay, he shall be put to death."

King Hammurabi, the King Amraphel of the Bible, 2285–2242 B. C.
(From Delitzsch's "Babel and Bible.")

Capital punishment was the penalty of many offenses against the law and was the common one for theft. Section 6 says that "if a man has stolen the goods of temple or palace, that man shall be killed, and he who has received the stolen thing from his hand shall be put to death." Section 7 provides that "if a man has bought silver, gold, manservant or maidservant, or ox or sheep or ass, or anything whatever its name, from the hand of a man's son, or of a man's slave, without witness or bonds, or has received the same on deposit, that man has acted the thief, he shall be put to death." Section 202 shows that they had discovered the merits of cow-hide for making good whips, for it says: "If a man has struck the strength of a man who is great above him, he shall be struck in the assembly with sixty strokes of a cow-hide whip."

The live-stock industry, as we have seen, is not only the oldest of all the orderly and provident occupations of men, but is the one that led them out from a state of savagery to higher planes of existence. Its influences upon their mental development and upon their material advancement are immeasurable. It was in the pastoral life that first were conceived elementary ideas and beliefs from which systems of religion, including those of modern times, slowly had their exaltation. It was among pastoral people that civilization had its birth and was cradled; and commercial and social communications between tribes and nations, the greatest of all civilizing agencies, had their origin among the same people. More than any other avocation of mankind, the pastoral life and industry have enriched modern languages with metaphors and similes of striking beauty, concrete significance, and charming simplicity. To its lightly-resting patriarchal form of government, first established for the guidance and protection of the family, and later extended over small clans, and still later over tribes, directly may be traced the origin of political organization as now exemplified in the great States and powerful nations numbering their people by millions and controlling the destinies of the world.

Charles Goodnight.

It has been aptly said that the man who achieves success in any great business is worthy of honor. When this success has been gained without the ordinary aids—in the face of grave obstacles and under circumstances that would certainly deter the vast majority—then it is that the individual is deserving of double honors. A man who enters the lists without education such as is taught in the lowliest of the public schools; who, in spite of apparent incongruity, "hitches his chariot to a star," with the dogged determination to achieve success regardless of impediments—he is the man who proves the divine origin of the race and inspires all worthy souls to noble effort.

In writing the biographies of some men, difficulties are presented which the uninitiated do not understand. The biographer who attains to the inner consciousness of the person whose life he desires to review is sometimes brought to a standstill. He feels that he is treading upon holy ground. The sanctuary of the heart has been disclosed, and the light is so dazzling that the inquirer stands abashed. This is rarely the case, however, except when the person whose experiences are to be written is well advanced in life, and has been so fortunate as to develop a beautiful character. For, after all, the chief worth of any human being is in the illumined soul.

Charles Goodnight, of Goodnight, Texas, is, by common consent of cattlemen, placed in the list of the pioneer live-stock men of America as one of the greatest range breeders the industry has known. It is also acknowledged that he is one of the greatest all-round cattlemen who has ever lived upon the plains. For fifty years he has made a constant study of the various phases of the cattle business, and the fund of information he has acquired is exhaustless. Modest and unpretentious, and always more desirous of giving credit to others than to himself, Mr. Goodnight has a mind of the keenest insight, a just appreciation of the strong and weak points of any branch of a problem he undertakes to investigate, and great ability in carrying out plans after they are once formulated. He is a born woodsman and a born leader of men. His record shows that he was an ideal fighter when fighting was necessary, and he is the gentlest and kindliest of men in times of peace. From the day he first entered a home of his own, his express desire has been, "Let no man go hungry from the door." The liberality of Mr. and Mrs. Goodnight has given encouragement to many a despondent fellow-being and started him upon a new course of life. Goodnight College is a lasting monument to the spirit which seeks to advance the true welfare of the world without asking for reward.

In the course of his long and varied experience, Mr. Goodnight has been a farmer, Indian fighter, scout, guide, plainsman, a leader upon the cattle-trail, a ranchman and a breeder of cattle upon a scale so large that he has had as many as 100,000 cattle under his direction at one time, practically all of which were bred upon the ranch where they were grazing. As will be learned by reading Mr. Goodnight's views in a separate chapter of this work upon "The Breeding of Cattle," he is fearless and outspoken in his utterances, and has well-defined ideas founded on personal experiment and long experience. Few men in the great Southwest have done as much towards giving permanency and prosperity to the range business as Mr. Goodnight. His herd of buffaloes is the largest in the world, and embraces the finest specimens extant of the noble animals, recognized as the original cattle of the plains. Living upon a beautiful ranch in the center of the Texas Panhandle, and dispensing a hospitality which is famed throughout the length and breadth of the live-stock world, the veteran cattleman and his wife have thousands of friends in America and Europe who wish them long continuance of health and prosperity.

The recollections and reminiscences of Mr. Goodnight would make an entire volume, and the following gleaned from him as he sat enjoying his pipe by the side of his fire-place in the library of his comfortable home, or as he rode over the ranch on business or for diversion, may be considered only as chips from a block which, in its entirety, would present one of the most interesting pages in the history of the West. The richest romance is found in actual life, and, when one meets a pioneer cattleman in his leisure hours, he is led to the conclusion that no stories ever written surpass in interest the stories of the frontier life and the cattle-trail.

Charles Goodnight is of German descent. He was born on a farm in Macoupin County, Illinois, March 5, 1836. His father, who died in 1841, was an early settler of Illinois. Mrs. Goodnight married a second husband, and moved with her family to Texas in 1846, settling in Milam County. The son, Charles, was given meager advantages of education in a country school in winter, and never attended school after he was nine years of age. He made himself useful upon the farm, learning to ride horseback, to care for cattle, to handle the gun, and to fight the prowling Indians. At twenty years of age he was inured to the rough life of the frontier, and soon entered upon a border career, for which he was peculiarly fitted. His first sight of a herd of buffaloes—an animal with which his name will always be inseparably connected—was within two miles of Dallas, on the west side of Trinity River. As time passed he made a close study of the buffalo, arriving at the conclusion that buffaloes and cattle have a common origin.

In the course of an interesting talk, he said: "Years ago I thought I knew all about the buffalo, but I have found I know very little. The buffalo has the best digestive apparatus of any animal in the world, and will live where other animals would starve. A mother buffalo will never desert her young. A buffalo never lies with his back down hill, making it impossible for him to rise to his feet again—a habit of cattle that has cost thousands of dollars to range-men. The buffalo never spoils the water, and many more buffaloes can graze on a given area than cattle. Buffaloes travel in strings, and do not cut up the range with their feet like cattle, as they walk in single file when going to and from water. A grown buffalo bull will weigh 2,200 or 2,500 pounds, and the meat has a better flavor than that of cattle. The buffalo lives to be forty or fifty years old. At seven to nine years the animal is perfectly developed."

The greatest buffalo herd Mr. Goodnight ever saw was in the Panhandle, west of Fort Belknap, Young County. The herd was twenty-five miles wide and one hundred and fifty miles long. This great herd parted as the white men advanced, and a "lane" was formed in the herd a quarter of a mile wide, through which the party moved. The herd was drifting southward, and comprised millions of animals slowly traveling to their winter range. Years afterward it was necessary to keep men on watch in the Panhandle to prevent the buffaloes from encroaching on the cattle herds and stampeding them. Mr. Goodnight says a man was regarded as a poor shot who killed only five buffaloes with a revolver which carried six cartridges.

In 1856 Mr. Goodnight formed a partnership with a young friend, W. J. Sheek, and they started with a bull team, wagon, and three horses over the southern route for California. At the San Saba River, the adventurers came to the conclusion that Texas presented all the inducements that ought reasonably to be desired for permanent residence, and, starting homeward, met a cattleman at the crossing of the Brazos River, who agreed to turn over to them a herd of 450 cattle. A contract was entered into for a term of nine years. Goodnight & Sheek were to range the cattle where they pleased, and were to brand one fourth of the yearly increase as their own. Many grave discouragements were encountered during the existence of the contract, and the four troublous years of the Civil War wrought havoc in all classes of live stock in Texas, but at the time of final settlement Goodnight & Sheek were the owners of a herd of 4,000 head of cattle—the foundation of a fortune.

Residence of Charles Goodnight, Goodnight, Texas.

Heavy losses were inflicted by raids of Indians, as Palo Pinto County—the region selected for ranging the cattle—was subject every month of the year to incursions of bands of Indian thieves and murderers. In protecting the herd, Mr. Goodnight gained intimate acquaintance with the country and methods of trailing and fighting Indians. For two years previous to the Civil War he was a large part of the time in the saddle, guarding the cattle-range. When the war opened he enlisted in Norris' Rangers as scout and guide, and spent the entire period of the conflict in a service recognized as one of the most exacting and perilous in the annals of the frontier. The men who protected the frontier of Texas were the best in the world for that purpose. They were mostly young, active, strong of body and mind, keenly alive to the importance of turning back a cruel foe from the widely-separated homes of dauntless spirits who were the advance-guards of civilization, and nobly did they perform their duty. Every man furnished his own horse, gun, and accoutrements, and neither the State of Texas nor the Confederate Government ever paid them for their services. This magnificent body served without expectation of financial reward, and lived off the wild game of the country. The men slept without tents on the ground, and they willingly gave up their lives to protect defenseless women and children of the frontier.

All honor to the memory of this gallant band!

The Comanches and Kiowas raided the cattle ranges so industriously that Mr. Goodnight estimates they drove 350,000 cattle from the border counties of Texas during the war, notwithstanding the unceasing vigilance of the rangers. The force of white men was too small to protect effectually a line of a thousand miles. It was while in this service that Mr. Goodnight first visited the region of Palo Duro Cañon, where afterwards he established the first great ranch in the Panhandle, selecting what he believes to be the most favorable spot for a cattle-range that has ever been found in America.

"Norris' Regiment of Texas Rangers," said Mr. Goodnight, "was made up of as good fighting material as ever rode against an enemy. Every man of the command recognized he was there for a single purpose—to kill Indians. We asked no quarter and gave none. We were in the saddle fifteen or eighteen hours a day. The regiment was divided up into a number of detachments, maintaining a line of communication across the entire western and northwestern border of the State. We moved at a minute's notice, and when necessary we traveled fifty or seventy-five miles a day. Every man carried a rifle, two revolvers in his belt, and two revolvers in the holsters of his saddle. Good ammunition was scarce, and we reserved that for fighting the Indians. The ammunition furnished by the State was of very inferior grade, and we used it in killing game. Lead for bullets was very scarce, and in one emergency several members of our company went even to the extent of stealing a bar of pig lead from our blacksmith. This bar was one of the most precious things in his possession."

The scout assigned to any company virtually directed, except when a fight with the Indians was in progress. It was his duty to lead the company to the enemy by the shortest route, and scarcely less important was the finding of water for camping-places. At the close of the Civil War Mr. Goodnight knew every watering-place in West Texas, and was so well acquainted with the topography of the country that he could direct his way anywhere over a vast region even by the light of the stars. He never had a compass, and was never lost on the prairie, although hundreds of times he was alone, many miles from his companions. In his opinion, a woodsman is born, not made.

"I am a believer," said he, "in what the writers upon psychology tell us of the powers of the sub-conscious faculties. More than once I owed my life to warnings of the sub-conscious mind. One night on the plains I suddenly awoke from a sound slumber. A voice seemed to say, 'The Indians are going to get your horses.' My horses were hidden in the brush three miles away. I awoke my companions, but they laughed at me for declaring we were about to lose our horse herd. I insisted that the warning was true, and succeeded in saving all my horses. All the other horses were captured by the Indians before day-break.

"The best way in the world to find out the true nature of a man is to go camping with him, especially if it is in a time of danger. In ten days you will know more about a man than you might learn in ten years at home. In some cases it is a bitter disappointment, but many of the noblest characters I ever met were upon the plains. There is where you will find the genuine democracy. The purest metal is evolved from the greatest heat."

Once while traveling over the prairie, Mr. Goodnight found a family Bible lying in the grass. The Bible had been lost by a band of Indians that had killed and scalped the wife of a settler, taking the Bible with them, the leaves of which were to be used in their shields to ward off bullets. This was according to a superstition of the plains tribes.

Soon after the close of the war Mr. Goodnight made a second attempt to leave Texas and establish himself in a region safe from constant struggle with Indians. In company with Colonel Kit Carter, C. C. Slaughter, George Lemly, and Dick Jowell, he started for Mexico. Arriving at Devil's River, Slaughter was wounded by the accidental discharge of a gun, and the expedition was abandoned. A silk handkerchief was pulled through the opening caused by the bullet, and the wound gradually healed. The Indians were even more active in despoiling cattlemen of their herds than during the war, and Mr. Goodnight decided the only method of saving his cattle was to drive out of the country to a Northern market. The distance from Fort Belknap to Fort Sumner, New Mexico, was about 600 miles; no trail had been opened, and the way was beset by many dangers. Entering into an agreement with Oliver Loving, the Goodnight and Loving herds were combined, and a trail, afterwards known as the Goodnight Trail, was opened. This trail reached the Pecos River at Horsehead Crossing, and led northward along the river. Several hundred thousand cattle passed north over the route before the days of the cattle-trail came to an end. At Fort Sumner the entire herd was sold at 8 cents per pound to contractors who were supplying beef to the Indians under Government contract.

The return journey was not without incident, as a mule carrying the provisions of the party and $6,000 in gold and silver stampeded in the night, and the money was saved only at the imminent risk of the life of Mr. Goodnight. The provisions were lost, and the party was in severe straits for food, when a man appeared on the lonely desert driving a wagon filled with watermelons. Never did watermelons taste so delicious as on that burning desert. Mr. Goodnight had been ruminating as follows:

"Here we are on the desert almost starving; nothing to eat, but plenty of money. What is the use of money? We can't eat it and we can't carry it with us when we die. I don't believe I care much for money."

He says he never changed his mind as to the conclusion he then reached concerning the real value of money.

A second herd was driven through to Fort Sumner the same season (1866) in the short period of thirty-three days. The provisions and money were this time brought to Texas in a wagon.

In the spring of 1867 Goodnight and Loving conducted their third herd northward upon the trail. The venture ended in disaster. Mr. Loving, whom Mr. Goodnight pronounces one of the noblest and clearest-headed men he ever knew, lost his life in an attempt to reach Fort Sumner in advance of the main party. He and a companion, J. M. Wilson, were attacked at a point near the present site of Eddy, New Mexico, and after five days' exposure and a prolonged fight with 600 Indians, Mr. Loving was found by Mexican traders and carried into Fort Sumner, where he died. Wilson escaped. Near Camp Cooper, while sleeping on the ground, Mr. Goodnight was in critical danger from an Indian arrow. The arrow passed beneath him, between his buffalo robe and the ground. The Indians disappeared with 300 cattle. The remainder of the herd was driven through to Colorado, but the season proved unprofitable.

Mr. Goodnight next entered into an agreement with John S. Chisum to drive his herds north, upon a basis of one half the profits, and for three years he handled the Chisum cattle upon the trail, disposing of them in Colorado, Wyoming, and Montana. His experience in Texas enabled him to manage large herds successfully upon the trail. He understood the nature and habits of the Texas long-horns as they have been understood by few men, and early learned to take advantage of the characteristics of the animal. One day, arriving with a large herd at the crossing of the Arkansas River below Pueblo, he found a thoroughly discouraged and disgusted trail-herd manager whose cattle refused to enter the water. He had almost exhausted his cattle and his outfit, and had thoroughly exhausted the expressive vocabulary of the cowman, but the Texas steers were sullen and obstinately resisted every effort to force them into the current.

Mr. Goodnight understood the situation at a glance. He asked the manager to withdraw his men from harassing the herd, called forward the experienced trailmen of his own outfit, started one of them into the water ahead of the herd, and in a few minutes the cattle were in the river heading for the opposite shore. The Texas long-horns, according to Mr. Goodnight, had keener instincts than the higher-bred cattle of the present day, and were much better able to take case of themselves.

In 1868 Mr. Goodnight bought a ranch on the Purgatoire River in Southern Colorado, forty miles from Trinidad, and there he made his headquarters for several years. He soon gained a position as one of the largest ranchmen of the Rocky Mountain region, and entered into farming upon a large scale. His ranch was regarded as the model ranch of Colorado. He was one of the organizers of the Stock Growers' Bank of Pueblo, and was engaged in a number of enterprises in the valley of the Arkansas when the financial panic of 1873 swept through the country, wiping out all his holdings except a herd of 1,800 cattle. The building of railroads through the grain belt to the mountains contributed to lessen farm values, as it introduced cheap grain from the fields of Kansas. As a result, Mr. Goodnight was driven back, willingly or unwillingly, into the business to which he was best adapted by nature and experience. He decided to devote himself to the range.

As was stated earlier in this article, no man was more intimately acquainted with west Texas than Charles Goodnight. For eight years he had ridden over the country, in summer and in winter, in sunlight and in storm, by night and by day, and when he began to cast about for a permanent cattle-range, Palo Duro Cañon and vicinity came into his mind. He had passed the mouth of the cañon during the war, but it was a stronghold of the Comanche Indians, and for centuries had been their wintering-ground. Jealous indeed were the red men of this beautiful spot, protected by rocky crags, carpeted with luxurious grasses, and watered by an everflowing stream.

The experienced cattleman decided to pitch his cow-camp in Palo Duro Cañon. In the fall of 1876 he entered the cañon at a precipitous spot twelve miles south of the present site of Cañon City, and a few days later, he located his headquarters on the right bank of the stream, at a point afterwards designated as the winter camp. The location is one of the most romantic in the State of Texas. The cañon, at the place named, is probably four miles wide, and is thickly studded with shrubs and trees indigenous to the latitude of the Panhandle. A spring of clear, sparkling water bubbles from the rocks, and an air of peace and tranquillity dwells throughout the valley, that makes it one of the most delightful homes a cowman ever knew.

Palo Duro means "hard wood," and was so named by the Indians, who found in the cañon, as had their fathers and forefathers from time immemorial, a hard wood perfectly adapted for the bow and arrow. When Charles Goodnight entered the cañon—virtually its discoverer—he found it abounding in buffaloes, deer, bears, wolves, and other wild animals. The buffaloes were so numerous that it was a question for a time whether it would be possible to maintain cattle on the same range. At length a line was established at Turkey Creek, and guards were stationed to drive the buffaloes back. On the plains adjacent to the cañon ranged immense numbers of wild horses, estimated by Mr. Goodnight at 50,000 on Tule Cañon—a branch of Palo Duro Cañon—alone. It was not unusual to meet with half a dozen black bears in a day, but no attention was paid to the bears, as they appeared harmless. It was a hunter's paradise—the greatest game country the West has ever known.

Soon after locating himself in the midst of these remarkable surroundings, Mr. Goodnight received a visit from an unexpected source—Quanah Parker, chief of the Comanches, escaped from the reservation in Indian Territory and came to the cañon at the head of a band of warriors with the avowed intention of disputing ownership with the new intruder. Here Mr. Goodnight's knowledge of Indian customs came into practical service. He received the chief with a hospitality that touched his untutored nature, and succeeded in making a treaty that confirmed good will between himself and the Comanches.

The next step was to secure capital necessary for the establishment of a great ranch. Through friends at Denver, Colorado, Mr. Goodnight heard of John G. Adair, of Ireland, an extensive investor, who was desirous of placing money in cattle business upon the Western range. In 1877 Mr. Goodnight met Mr. Adair in Denver, explained the situation, and a partnership was formed, in which Mr. Adair was to hold two-thirds' interest and Mr. Goodnight the remainder. Mr. Adair and his wife made a trip overland to the spot and invested $372,000, a large part of the amount being used in the purchase of land along the cañon. The purchases were made under direction of Mr. Goodnight, and a great body of land embracing over 1,300,000 acres was segregated into the Adair Ranch. The cañon for seventy-five miles was acquired and used as winter range for the herd that was rapidly developed. The partnership was dissolved at request of Mr. Goodnight in 1888, after it had been in existence for nine years, and Mr. Goodnight's share of the property was 33,000 head of cattle and the "Quitequa" Ranch, where he has since maintained his home. The magnificent herd of Herefords developed upon the Adair Ranch has long been recognized as one of the finest in the world.

In managing the ranch, Mr. Goodnight introduced many innovations. He never permitted whisky-drinking or card-playing upon the ranch, and was the first ranchman in the Panhandle to fence large pastures. He early began to build up a pure-bred Hereford herd, known as the "J. J." herd, all other cattle on the ranch being branded with the letters "J. A." All departments on the ranch were thoroughhly systematized, and general headquarters were built at Palo Duro, where the headquarters have since been maintained. Upon retiring from the position as manager of the ranch, Mr. Goodnight, in 1869, built the elegant home near the railroad, where he has since resided.

The Goodnight High Grade Cattle Company was organized, Mr. L. R. Moore, of Bullene, Moore & Emery, Kansas City, entering into the partnership with Mr. Goodnight. These relations were terminated by the death of Mr. Moore, and for several years Mr. Goodnight has operated independently.

The cañon of Quitequa Creek crosses one end of the Goodnight Ranch, and is used as the winter range for his fine herd of Polled Angus cattle—

a species that he considers eminently adapted for the cold winters of the Panhandle.

The Goodnight herd of buffaloes, which grew from four animals, two of which were lassoed and captured in the cañon on his ranch, contains the finest specimens of buffaloes in the world, and numbers sixty full-blooded animals and a still greater number of hybrids. His studies along the line of crossing the buffalo with the Poled Angus have required years, and he is still of the opinion that a mixed breed can be produced that will combine hardihood and beef qualities superior to any breed of cattle now in existence. The impossibility of securing half-breed bulls by the method of crossing which he adopted has led him to test a different system, the results of which he has not as yet made public. As a practical scientific breeder, it is felt by his brethren that Mr. Goodnight is the best qualified man living to carry forward to final success the difficult problem of breeding to which he has devoted a number of the best years of his life.

Mr. Goodnight"s hair and beard are now silvered with years, but at the age of sixty-seven his striking personality would attract attention in any assemblage. His face has a strong resemblance to that of General U. S. Grant, and his large, expressive, black eyes flash with intelligence as he recalls the stirring incidents through which he has passed, or, in the most attractive and interesting style imaginable, discusses the problems to which he has devoted many years of conscientious investigation. He has a breadth of view and fund of information upon a wide range of subjects that are surprising to persons whose lives have been spent among books, rather than in contact with Nature.

Six feet tall, weighing 225 pounds, splendidly proportioned, clear-headed, a magnificent rider, and a dead shot, he was an ideal plainsman, whose very appearance quelled rising disorder and compelled obedience. Throughout his active life he was a hard worker, rising at daybreak, and personally superintending every detail of business in which he was interested. He thoroughly understands carpentering and iron-working, and one of his favorite diversions has been to spend an hour or two daily, when time permitted, at the forge in the blacksmith shop. He is a patient and accurate observer of natural phenomena connected with live stock, the farm and ranch, and has made many original discoveries as to diseases of horses and cattle and methods of improving the breeds. His enthusiasm in all branches of the range or farm is as great to-day as at any time in his life, and many tests he has made in farming in the Panhandle have convinced him that it is destined to become a great farming country.

Speaking of some of his observations, he said:

"If I were to select men for a dangerous service calling for great bodily vigor, I would confine my list to men between sixteen and thirty years of age, and would accept nobody weighing more than 150 pounds. I would be very cautious in accepting a man who had reached thirty years, and would rather draw the line at twenty-five years. That is the result of my experience in fighting Indians. Young men recuperate quickly and are more obedient to orders. The majority of men on the cattle-trail were young men.

"I have found also that the better educated a man is, the easier it is to teach him to perform a certain work. This matter of education in a young man is of great importance, and it was on account of the effect of education, as I observed it in the army, on the cattle-trail, and on the range, that I became interested in the school which is now in existence at this place. An educated man is more easily disciplined than one who is illiterate, and the greatest possible blessing to any State or nation is to provide schools for the young people. If I had my choice, I would give young women a greater advantage of education than young men. Show me the mother, and I'll tell you the character and capabilities of the son. The moral influence of woman is uplifting. Place a number of men in circumstances where they are shut off entirely from the companionship of woman for several months, and there is a noticeable deterioration in their moral tone. The very day the man returns home he begins to lose his rough edges, and soon becomes again a gentleman.

"The true woman is at the foundation of all civilization, and we need never fear giving her too much education. I believe the day will come when the mountain and prairie States of America will produce the finest race of men and women the world has ever known. The extent of a man's vision has a great deal to do with the size and quality of his brains. Such people cannot be prevented from succeeding, and we should bear in mind that we must meet by brains in the West the problem that is being presented by numbers in the East."

In 1871 Mr. Goodnight was happily married to Mary Ann Dyer, daughter of Joel Henry Dyer, ex-Attorney-General of Tennessee. General Dyer took up his home in Texas and was, for some years, a resident of Belknap. Mrs. Goodnight, previous to her marriage, engaged in teaching school, and for more than thirty years she has been an enthusiastic advocate and supporter of education in northern Texas. Mr. and Mrs. Goodnight have no children of their own, and perhaps it is in a large degree on that account that they were impelled to found and support the institution which has become the leading interest of their lives.

Goodnight College was founded seven years ago, and occupies a place as one of the permanent educational institutions of the Panhandle. Mr. and Mrs. Goodnight have given in money and land to the institution more than $30,000, and on account of farming and stock-raising which are conducted in connection with the college, it is almost self-supporting. A plan has been devised for endowing the college by the purchase of 3,000 or 5,000 acres of land adjacent, by means of which funds may be provided, not only for maintaining the institution, but for erecting buildings, providing facilities for instruction, and assisting worthy pupils who may not have the means to bear their own expenses.

The college is intended not only as an educational center, but as an agricultural experiment station, where the agricultural and stock-raising problems of the Panhandle may be worked out under competent instructors. The students are here taught to become practical farmers, and scores of them may be seen on Saturdays working in the fields, thus assisting in paying their way through the school.

As this college is in the midst of the cattle country, and the pupils are from many homes possessing exceedingly limited educational advantages, Goodnight College appeals with unusual force to live-stock men. It is distinctly an outgrowth of the industry. It is non-sectarian; its doors are open to every young person of either sex who longs for education and cannot afford to attend more distant or more costly institutions. The attendance is at present restricted to 125 students, but if friends of this worthy movement come forward and assist in purchasing land for a permanent endowment, the attendance can readily be increased to 500.

It is believed this result can be accomplished, and when it is, the crowning desire of the veteran cattleman and his wife will become a reality, and the entire Panhandle of Texas will feel the beneficent influence of one of the most useful and practical institutions that human ingenuity could devise for the advancement of the race.

The Coming of Domesticated Animals to America.

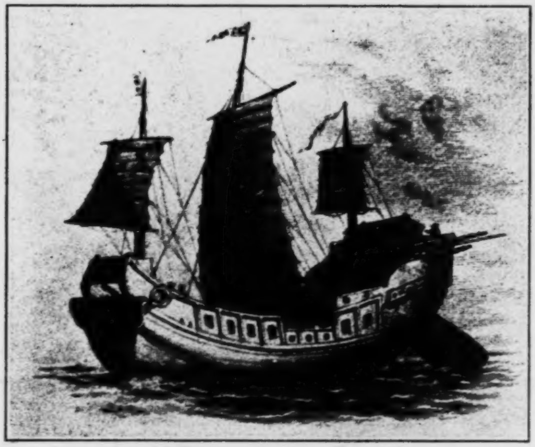
Pre-Columbian Discoveries of the Western Continent.—Ancient Chinese Colonies on the Pacific Coast of North America.—Northmen and their "Cattle" in North America.—Old Stories of Other Discovery Voyages from Europe.—Expeditions of Madoc.—Coming of the Spaniards.—Introduction of Domestic Animals Into the West Indies by Columbus.—Additional Importations.—Advent of Live Stock Upon the Mainland of the Continent.—Cortes in Mexico.—Absence of Domesticated Animals Among the Natives.—Terror Caused by the Horses of Cortes.—Horse Worshiped in Mexico.—Character of Spanish Horses.—Advance of the Spaniards Into New Mexico.

Long before the name of Christopher Columbus was known, the American continent had been discovered by the audacious Northmen; those fearless Scandinavian sea-rovers who, through many centuries, ravaged the Atlantic coasts of Europe, and who, in quest of further adventures, made their way to Iceland, thence to Greenland, and finally landed upon the shores of Massachusetts. Here they attempted to establish permanent settlements, and, according to Icelandic history, as preserved in the Norse Sagas, at least one of their colonizing expeditions conveyed "cattle" to the new country.

The Northmen, in turn, are said to have had predecessor discoverers and colonizers of the great western continent, but these are credited with having sailed the Pacific Ocean. In certain misty stories that have come from China some able writers firmly believe that they have evidence that Chinese people visited the western coast of America and founded colonies there in the fifth century of our era, or about 600 years before the Northmen came to Massachusetts. But these Chinese tales are rather shadowy outlines of what is said to have been done, leaving all particulars buried in oblivion; the older one being much the more hazy of the two. This story purports to be an account of a very long voyage made by Buddhist monks from China "to the distant eastern country of Fu-sang," in the year 432 A. D., and of their exploration of its coast. By those who accept this story as a historical fact, "Fu-sang" is said to refer to our part of the world, and therefore they assert that here we have a record, such as it is, of a Chinese discovery of our continent. On the other hand, critics, who deny that this was a discovery voyage and who repudiate the Chinese as American pioneers, say that even if the story be trustworthy it is nothing more than an account of a religious expedition by zealous devotees of Buddha to Japan; the "Cipango" of Marco Polo and of the anticipations of Columbus. But, say the others, a voyage to Japan was not a long one, nor would it have been regarded, even in that period, as an undertaking so extraordinary in character as to be made the subject of any special record.

The other story, which appears to be more definite, but which its critics endeavor to dispose of by making it, also, apply to Japan, is that of an exploring expedition from China "across the great Eastern Ocean to a strange land beyond the rising sun." This was undertaken in the year 464 by Hoei-Sin (Universal Compassion); and it is said by some of our modern writers that this expedition may have gone as far as San Blas, Mexico. Reports of it, written by Hoei-Sin and several of his companions, were entered in the Chinese "Year Books" in the year 499. Ancient documents that recently came to light in China, would seem to give some support to the claims that have been made to the effect that visits by sea-rovers from that country to the eastern shores of the Pacific Ocean, in an early period in the Christian era, soon were followed by Chinese colonization of our western coast; inasmuch as these documents refer to such enterprises, and say that the people engaged in them "carried in their ships all things that were useful."

At that time the domestic animals of the Chinese probably were the same as those of the contemporary people of western Asia and of Europe, and therefore about the same as they are now among civilized people the world over; and it would seem certain that some of them, if not all, would stand at or near the head of the list of "things that were useful" to colonists. However, if colonies from the Flowery Kingdom ever were planted upon our western shores, all physical traces of their former presence there had completely vanished long before Europeans first explored that part of the world.

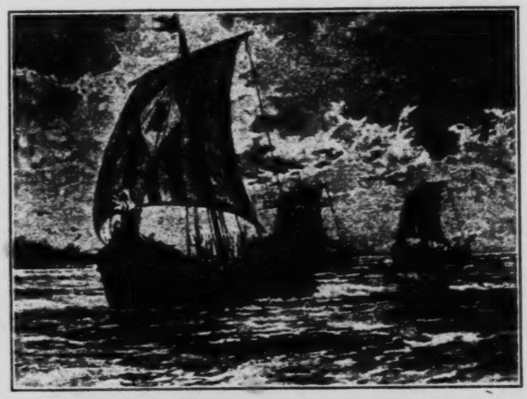


A Chinese Junk of the Eighteenth Century.
(From Bryant's "History of the United States.")

Those who reject the entire Chinese propoosition with respect to the colonization of our western coast by people from the other side of the Pacific, in support of their position point to the facts that the native tribes of California, Oregon, and Washington had no traditions of an invasion of their country by such a people, and that they were as ignorant of our domesticated animals, when white men first came upon them, as were their brethren on the Atlantic's shores. But these arguments in themselves would seem to have but little weight. As a group, the tribes of our western coast region were, in the mental scale, the lowest among all of the Indian population of our country, some of them being most wretchedly degraded specimens of humanity; and such people should not have been expected long to retain knowledge or traditions of events of any kind.

It would be out of place here to refer at length to the large accumulation of evidence, such as that afforded by physiognomy, forms of speech, customs and habits, of the relation of our Pacific Coast aborigines to Asiatic peoples. There need be nothing surprising in a proposition that there must have been intercourse between native inhabitants of the two continents from an indefinitely remote period in the past, but on the other hand it would be very strange if there had not been. In one place, Bering Strait is only about thirty-five miles wide; and the Aleutian Islands string across the North Pacific, within easy distance of each other almost to the Asiatic coast. Nor is there anything incredible in the supposition that the Chinese may have sailed directly across the Pacific Ocean long before Europeans ventured over the Atlantic. They were early navigators, are credited with the invention of the mariner's compass and are known to have had it in use early as the second century of our era. It is probable that their junks of 1,400 or 1,500 years ago were not greatly different from the kind of vessels that they use now in their coasting service, for changes are extremely slow among the people of that remarkably conservative nation, and it is certain that their present larger craft differ little in form or size from those in use when these people were first known to Europeans. Therefore, Chinese coasting junks of the fifth century A. D. most probably were as large as the smaller two of the three ships that formed the discovery fleet of Columbus, and easily capable of navigating the Pacific Ocean. Some of such craft have made their way across the Pacific in modern times. Early Spanish explorers of the South American Pacific coast reported that they had seen wrecks of Chinese junks on the beach when they entered the Pacific Ocean through the Strait of Magellan. Something like sixty years ago a Chinese junk that had been driven far eastward from the China coast by long-continued stress of weather finally succeeded in making the harbor of Honolulu. At another time in that period a Japanese junk that had been driven across the Pacific under similar circumstances was thrown upon Vancouver Island; the survivors of its crew being taken home by a British cruiser.

The stories of the Northmen's advance to our continent by way of Iceland and Greenland, about 500 years before Columbus set out upon his memorable voyage, are accepted now as records of historical facts. The advance was made slowly and covered a period of nearly 200 years. Some Irish monks had made settlements in Iceland in 725, but had abandoned them about a century later. In 860 that island was re-discovered by the Northmen, and in 865 a Norwegian leader named Flokko established a colony there, which was provided with cattle. The cattle having perished in the first winter, these colonists returned to Norway the following summer. In 875 the Norse Earl, Ingolf, founded a new colony, which was the beginning of the permanent occupation of the island, and with which cattle were introduced and acclimatized. This colony was strongly re-enforced by Norwegians, who took refuge there to avoid the tyranny of their king, Harold, the Fair-haired. Ingolf built the town of Ingolshof, named after him, and also Reikiavik, afterward the capital. So important did these settlements become that in the second generation their population amounted to about 60,000. In 876 Gunnbiorn, a hardy Norseman, driven in his ship westerly, sighted Greenland, but did not disembark, and no attempt was made to colonize it for more than 100 years. About half a century later a wind-tossed Norse vessel was thrown upon a coast to the west of Iceland, the new land being named "Mickle Ireland." In 980 another sea-rover, Erik the Red, sailed to this western country and, after three years' stay, returned with a favorable account—giving the new region the name it now bears, Greenland. A colony was at once organized to go to the new country. The expedition consisted of thirty-five vessels (some of which were lost on the voyage), under Erik's command, and carried a large number of men and women, a stock of "cattle," together with supplies of seeds and utensils of all sorts necessary to such a community going to occupy a new land. The Northmen established two centers of population on the southern end of Greenland. The first one, Eystribygd ("Easter Bigging"), developed into a large community, having in the fourteenth century 190 settlements, with a cathedral, eleven churches, and three or four monasteries. The other, Westribygd ("Wester Bigging"), grew to ninety settlements and four churches in the same time. The ruins of several of these churches still exist, one being in fair condition. This growth early was stimulated by Leif the Lucky, the vigorous son of Erik the Red, who went back to Norway near the close of the tenth century. He found that the king and people there had embraced the new religion, Christianity, which he also adopted; and when he returned to Greenland with recruits for the colonies, which he did without delay, he took with him a priest to preach the new faith. An old Danish account says that in the golden age of these colonies there were a hundred parishes to form the bishopric; and that the see was ruled by seventeen bishops from 1120 A. D. to 1408. Bishop Andrews is the last mentioned, ordained in 1408 by the Archbishop of Drontheim. The same account goes to say that according to some of the annals "the best wheat grew to perfection in the valleys; the forests were extensive and flocks and herds were numerous and very large and fat."



Ships of the Northmen.
(From Fiske's "History of the United States.")

In the year 995, Biorn (or Bjarni), sailing to Greenland in search of his father, from whom he had been separated by a storm, had been driven by tempestuous weather far to the southwest until he came within sight of a low country, covered with forests, and having an island near its shores. The weather becoming favorable, he turned to the northeast without having landed, and arrived safely at the Greenland settlements. Notwithstanding that there are other claimants for the honor, as we shall see further along, Biorn and his companions are now generally credited with having been the first Europeans who saw the coast of the great continent of the west; the first, at any rate, of whom there is any account that rises above the level of vague and misty tradition.

Upon reporting the discovery that he had made, Biorn was censured for having failed to land upon the shores of the new and inviting country; and Leif the Lucky resolved to visit it, as Biorn said it was only about nine days' sail southwest from Greenland. In the year 1000 Leif, in company with Biorn and thirty-five other men, sailed on his voyage of exploration. One part of the new country was found to be barren and rocky, therefore Leif named it Helluland ("Stone Land"), which appears to have been Newfoundland. Farther along they found a sandy shore, backed by a level forest country, which Leif named Markland ("Wood Land"), now identified with Nova Scotia. After two days' sail still farther southwest, according to the Saga story, they landed and explored the country; and Leif resolved to winter there. In these explorations a German named Tyrker found some grapes on a wild vine, and therefore Leif named the region Vinland ("Wine Land"), which now is identified as the country around Boston. Leif and his men built several huts at this landing-place, their site being believed to have been on the bank of the Charles River.

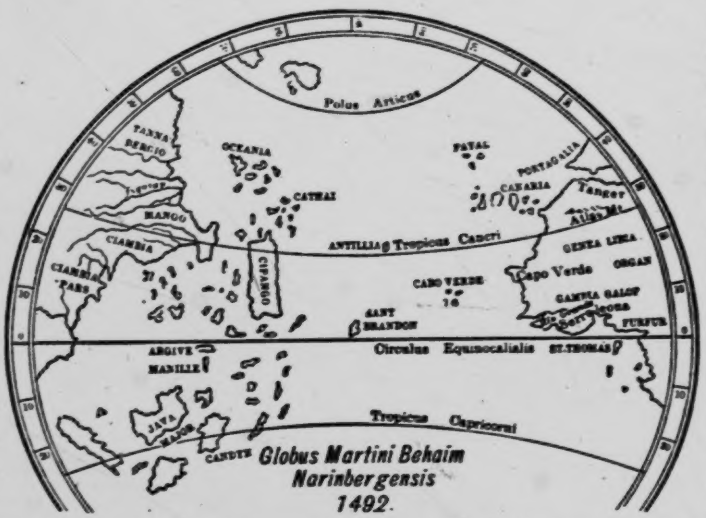
Leif and his party returned to Greenland in 1001, and in 1003 Thorvald, a brother of Leif, headed a second expedition to Vinland, and wintered where Leif had had his camp. In 1004, while exploring the New England coast, Thorvald was killed by Indians, and was buried on the shore of Massachusetts Bay. His companions returned to Greenland in 1005, and in the following year Thorstein, another of Leif's brothers, sailed to Vinland to recover Thorvald's remains, but returned unsuccessful. In 1007 Thorfinn, an Icelander, who had married a daughter of Erik the Red, and who, therefore, was a brother-in-law of Leif the Lucky, set out from Greenland with a large company of men and women to establish a permanent settlement in Vinland; having for his chief lieutenant one Thorvard. The Saga of Eric the Red says definitely that this party consisted of 160 persons, who sailed in three large vessels and carried "cattle" with them to Vinland. This live stock probably consisted of cattle and sheep, and it is now accepted as a historical fact that at least these two of our domestic animals were brought to America by the Northmen nearly 500 years before the Columbian discovery.

This company wintered on the Massachusetts coast at a place supposed by some authorities to have been on the shore of Buzzard's Bay, where a son, who was named Snorre (or Snorro), was born to Thorfinn and his wife, Gudrid. From this son, it is said by some Norwegian historians, that Thorwaldsen, the eminent Danish sculptor, was descended. In the spring of 1008 ten of these colonists returned to Greenland, and the others removed to the old camping-place of Leif the Lucky, where they remained until 1010, when, owing to the persistent hostility of the Indians, all hands went back to Greenland. Of the fate of their live stock nothing is known.

Undaunted by this failure to maintain a settlement in Vinland, Thorvard and an associate named Helgi resolved to make another attempt, and in 1011, with two vessels carrying sixty-six men and women, and colonial supplies in which it is supposed some "cattle" were included, sailed to the scene of the recent failure. Their followers quarreled and fought over possession of the houses that had been built and left there by their predecessors, and all of Helgi's adherents, thirty-seven in number—a majority—were slain; Freydis, Thorvard's wife, having killed five of the women with an axe. The next year (1012) the survivors abandoned the unfortunate settlement and returned to Greenland. The tragedy in which this colony became involved and the horror that the bloody strife caused to be associated with Vinland, combined with the hostility of the Indians, would seem to have led the Northmen to abandon their resolution permanently to occupy the new country. However, it appears that they continued to make voyages to it for the purpose of procuring some special kind of timber to be taken to Greenland, for about 135 years. In 1121 the Bishop Erik Upsi went from Greenland to Vinland, probably on a timber-carrying vessel, to see about converting the country's native inhabitants. According to the Sagas, the last voyage to Vinland for timber was made in 1347; and with this the curtain falls, and we hear nothing more about the visits of Northmen to America.

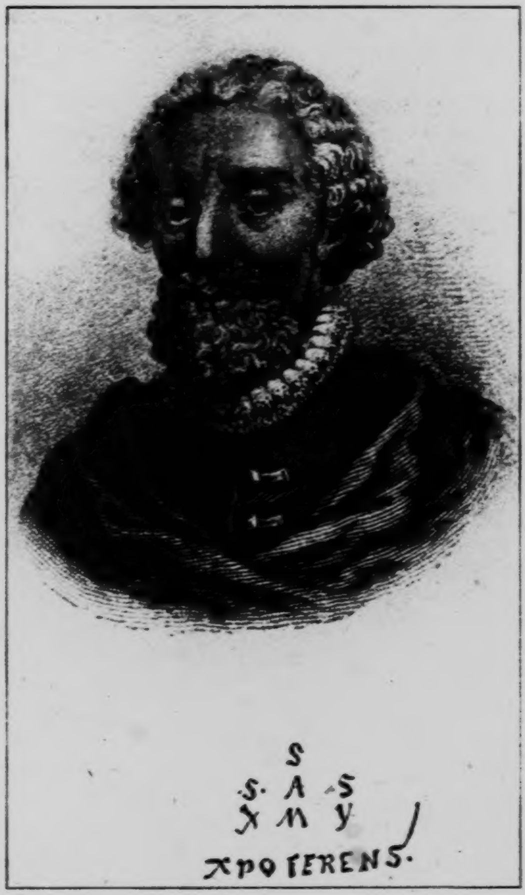
There is nothing improbable in the statement made in the Saga of Eric the Red that the colony of Thorfinn took live-stock to Massachusetts in 1007, nor is there in the presumption that Thorvard and Helgi did the same in 1011. The Scandinavians had succeeded in acclimating their domestic animals in Iceland, where they have remained ever since those people settled upon that island; and that they had flourishing herds and flocks in Greenland there is no reason whatever to doubt. Iceland is nearer to Greenland than to Norway; and Greenland is part of America. The distance from Iceland to southern Greenland is about 600 geographical miles, and from Greenland southwest to the coast of Labrador the distance is about 500 miles. In every other historical instance of the migration of a people, or of a colonization, those engaged in the movement always regarded their "cattle" as indispensable, and therefore took their domestic animals with them. The Northmen would have had no serious difficulties in transporting live stock from Greenland to Massachusetts. Some of their vessels were as large, if not larger, in size of hull and in carrying capacity as either of the smaller two of the three that Columbus had with him on his first voyage—these being of but a few tons burden and not decked amidship. Therefore those of the Northmen were large enough to accommodate several head of cattle or sheep in addition to the people they carried.

In 1880 there was exhumed near Christiana, Norway, one of these "Viking ships" that had been buried nearly 1,000 years in a great bed of blue clay that had preserved the larger part of it from decay. This vessel, built and used in the period of the Vinland settlements, is eighty feet long, sixteen feet wide, and about six feet deep amidship; the depth increasing fore and aft by the rise of the bow and of the stern. Seventy shields, as many spears, and other war equipments recovered with the hull showed that it carried that number of fighting men. No doubt it was in such vessels as this that the dauntless Northmen sailed the tempestuous North Atlantic to Iceland and to Greenland, and finally pushed southwestward to the coast of Massachusetts. A compilation of the accounts of various voyages of the Northmen over the Western Ocean was begun in 1387. This collection, which is known as the "Codex Flatoiensis," was completed in in 1395, and deposited in the monastery of Flato, Iceland, but is now in the Royal Library at Copenhagen.



Behaim's Map of Half the World, showing the supposed situation of Asia with relation to Europe and Africa. One of the Maps known to and used by Columbus.
(From an old printed copy of the Map.)

It might reasonably be supposed that the Indians of New England should have had some traditions of these strangers who had repeatedly visited their country; but they appeared to have none, nor did they seem to have any traditional knowledge of our domestic animals. Yet they did not regard the white men who came among them after the time of Columbus with the superstitious awe and terror in which the islanders of the West Indies and the people of Mexico held their white invaders at first, nor did the appearance of the horses and cattle of the New England settlers surprise or alarm them in the least. The Indian population of the New England country had been fearfully decimated a few generations earlier by a strange pestilence, and perhaps this affliction had interrupted the transmission of traditions.



Christopher Columbus.
(From an Engraving of a Portrait by Herrera.)
The letters and words beneath the portrait form his cryptogramic signature.

Before the Norse accounts of the various expeditions of Northmen to America had been thoroughly investigated by modern scholars it had been presumed that Leif might have landed on either Newfoundland or on some part of the coast of Nova Scotia, and that the succeeding attempts to found permanent settlements had been made in that part of North America; then, after further consideration of the Norse descriptions of the Bay overlooked by Leif's huts that were built for the winter of 1000–01, it was concluded that the body of water referred to was Mount Hope Bay, of Rhode Island; but recent investigations, and the uncovering of stone remains of walls and fire-places, have made it rather clear that the scene of the Northmen's attempts to establish themselves on this continent was the country around Boston Bay.

The Norse settlements in Greenland finally sunk into oblivion, nothing definite being known of the fate of the people. It has been asserted that some sea-faring enemy from Europe with fire and sword laid waste the country; that the population was destroyed by the dreadful plague known as the "black death"; that the Eskimos, becoming very hostile, harassed the people year after year, and kept on decimating their ranks and resources until the survivors were forced to take to their vessels and go back to Iceland and Norway. But there is more of theory than of knowledge in these assertions, for no one really knows what became of the people.

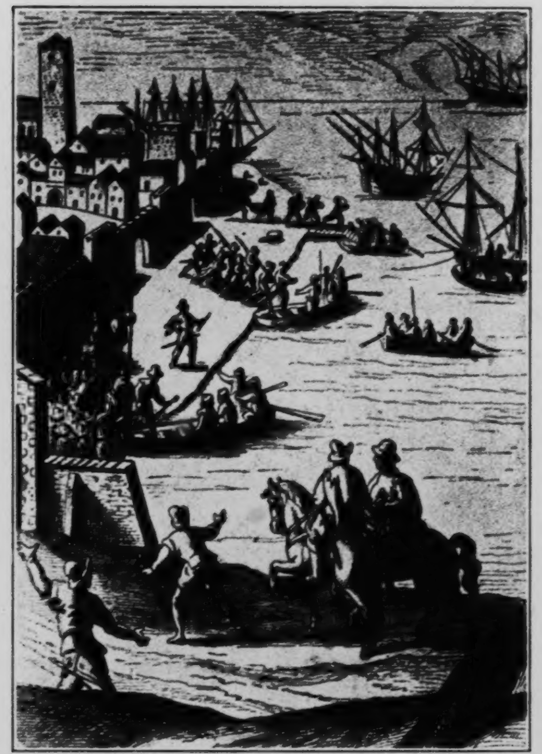
There were several traditional stories afloat in Europe both long before and in the time of Columbus that told of adventurous voyages by Europeans into the Western Ocean, where beautiful islands and strange countries had been discovered. The oldest of these within the Christian era deals with the voyage of the Irish St. Brandon, Abbot of Cluainfert, Ireland, who died in May, 577. This adventurous man had been told that far out in the ocean there was an island paradise that was the land promised to the saints. Saint Brandon set sail in company with seventy-five monks for this land of promise, and spent seven years upon the ocean in two voyages, in which he discovered this island and many others equally marvelous, including one which turned out to be the back of a huge fish, upon which he and his monks celebrated Easter; all of which goes to show that St. Brandon had the true Irish love for romancing. The Irish monks who had been the pioneers of Iceland and had left that island in the ninth century, are said to have joined others of their order who had already long held a district on the eastern coast of North America, which some Norse skippers called "White Man's Land," and which a distinguished modern writer thinks was the coast of our Carolina States. There were three or four old discovery stories hailing from the south of Europe; and one that was constructed by some Spanish priest-missionaries immediately after the Columbian discovery, made our ancient friends, the lost tribes of Israel, the genuine pioneers of America, and said that our Indians were descendants of these interesting people.

After the discovery by Columbus another of these old tales was supposed by many people to be a historical fact, and is still regarded as such by some modern historians. It tells of the founding of a Welsh colony on the western continent more than 300 years before the first voyage of of Columbus. In 1170, according to the tradition, as we shall call it, after rumors of the Norse discoveries had reached Britain, Madoc, a discontented Welsh prince, having resolved to abandon his native land, sailed due west with a fleet of several vessels, carrying a numerous company of his followers. After an absence of a year or so he returned, and reported that he had settled 120 colonists in a vast and beautiful country beyond the Atlantic. He departed again with ten ships and many more people, the vessels carrying all kinds of supplies, including "cattle," for colonists intending to establish themselves in a new country; and was never heard of more. Quite an array of circumstantial evidence has been collected in modern times in support of this story, but it would be tedious to enter upon consideration of it here. In the seventeenth century some English writers, accepting the story as true, published it widely, in order that the British claims to North America should antedate those of Spain through the discovery by Columbus.

When the Spanish explorers of 1492 stepped upon the soil of the western hemisphere it was to them as if they had alighted upon another planet—all was so different from what they had ever seen before. The type of man they encountered, though familiar in form, was strange in complexion, language, customs, and institutions; while the varieties and luxuriance of vegetation were new, and all the animals they saw were species theretofore unknown to them. They were especially impressed by this novel character of the quadrupeds of their New World, and by the fact that they could not find a single creature that was like any of the domestic animals with which they were acquainted. Of the horse, the ass, the cow, the sheep, the goat, and the pig, invaluable servitors which the Spaniards believed to have been with all men from the very beginning of things, they learned to their astonishment that the natives were absolutely ignorant; not having even a tradition of any such beasts. The natives had no useful domesticated animals, and when the Spaniards brought their live stock into the West Indies the next year the simple-minded savage people were terrified by the appearance of the larger of the creatures, and amazed and mystified by the uses to which all were put by the mysterious strangers, and by the docility with which all submitted to such uses.

The position of Columbus in history, and the fame that attaches to his name and achievements, are not seriously affected by what explorers before him may have done. His re-discovery of the western continent was followed by its permanent occupation and by a development that has never been equaled in the history of the world. He not only re-discovered it, but colonized it, and was the first man effectively to introduce into it the domesticated animals. He had none with him upon his discovery voyage, but on his second, in the autumn of 1493, which had for its principal purpose the planting of the first colony of Spaniards in the New World, his ships were enlivened by the sights and sounds of the barnyard. Any number of "cattle" that the Northmen could have brought in the year 1007 in their three vessels, or in the year 1011 in their two, must have been much smaller than that of all of the animals Columbus had on the large fleet with which he sailed upon his second voyage. Therefore, this is to be regarded, from the historical standpoint, as the first trans-Atlantic shipment of live stock that turned out well.

Columbus embarked a large number of horses both for military uses and for stocking the new possessions, and cattle and other domestic creatures together with grain for sowing, seeds of many plants, sugar canes, and various supplies for agricultural purposes. Sailing from the Bay of Cadiz on September 25, 1493, his fleet of seventeen vessels arrived at the Canary Islands on the 1st of October, and after having touched at the Grand Canary, anchored on the 5th at the smaller island of Gomera. Here he purchased calves, goats, and more sheep; and, as the Spanish historians were at pains to specify, eight hogs, from which, according to the narratives of Las Casas, the great number of swine with which the Spanish settlements in the New World subsequently abounded were propagated. Many domestic fowls also were obtained at Gomera, and which became the pioneers of their kind in America. After a prosperous voyage from the Canaries, one of the outer islands of the West Indies was sighted on the 3d of November, but it was not until the middle of December that the expedition disembarked on an island Columbus had discovered the previous year and named Hispaniola ("Little Spain"), but which recovered in later times its present native name of Hayti. It was there, upon the site of the first Spanish city in the New World—to which Columbus gave the name "Isabella" in honor of his patron queen—that the horse, the cow, the sheep, the pig, and the rest of them that had accompanied the expedition, set foot on soil of the western hemisphere. Their losses at sea had not been great, but all, and especially the horses, had suffered excessively from the unavoidable hardships and the restraint of the long voyage.

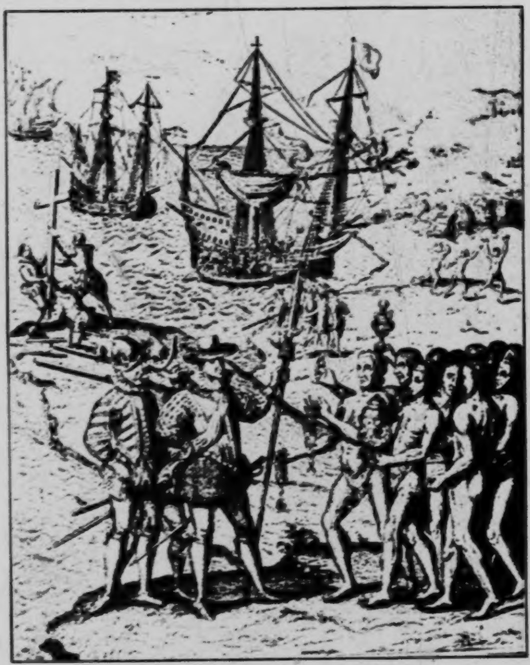


Embarkation of Columbus at Palos, Spain, Aug. 3, 1492.
(From an old Spanish print.)

In succeeding years Spanish colonists and adventurers—the latter constituting a large majority—flocked to the West Indies and overran every island of considerable extent or importance. Nearly all of the vessels that carried these people from Spain also had on board some live stock, but the ships were small and crowded, and each could accommodate but a limited number of animals. However, these importations, added to the natural increase of those that had preceded them, soon provided the colonies with a fair supply of all, excepting horses. The latter, not the best of sailors under any circumstances, required more ship-room than any of the others, and were more susceptible to serious injuries by the rolling of the crazy vessels in rough weather. In consequence of these difficulties of their transportation, of hard usage and losses in military enterprises, and of their slow natural increase in the islands, the Spaniards were embarrassed for many years by the scarcity and great cost of horses in their new possessions.

It was not until about eighteen years after the discovery voyage of Columbus that the Spaniards established a permanent settlement, and introduced their live stock upon the continental part of America. Columbus in his last voyage in 1502 had left a small colony at Belen, in the present Panama, but the undertaking had been abandoned almost immediately. In the autumn of 1509 two colonizing expeditions, one of which was led by Alonzo de Ojeda and the other by Diego de Nicuesa, sailed from Spain for the purpose of planting colonies in the region of the Isthmus of Darien. They arrived at the city of San Domingo, Hayti, without mishap, and there replenished their supplies and made some additions to the live stock they had brought from Spain; Ojeda embarking twelve brood-mares a proceeding that would seem to have been, under the circumstances, somewhat premature, as neither commander knew just where he would land, but would have to search the coast for a favorable location. However, the brood-mares afterward served an important purpose. By command of the Spanish sovereign, the Gulf of Urabi, now called the Gulf of Darien, was to be the division between the allotments of territory to the two colonies. Ojeda was to have that portion extending from the gulf to Cape de la Vela, which is just west of the Gulf of Venezuela; and Nicuesa was to take that between the gulf and Cape Gracias a Dios ("Grace of God"), of Honduras. Hernando Cortes, already a prominent figure in the Spanish island-colonies, and who was destined to win in Mexico imperishable renown ten years later, was in San Domingo at that time, and had intended to sail with Ojeda, but was prevented by an inflammation in one of his knees.

Ojeda left San Domingo November 10, 1509, and after some remarkable adventures which need not be recounted here, found a place for his proposed settlement on that part of the coast of the Gulf of Urabi that belonged to his territory. He named his embryo capital San Sebastian, and there landed the first of our live-stock animals that set foot on the continental land of America as intending settlers; though he had previously taken a few of his mares ashore to terrify hostile Indians at a place where he had landed in Nicuesa's territory. San Sebastian soon came to grief through starvation, and the hostility of the natives who used their poisoned arrows on the invaders with deadly effect. About everything else having been consumed, four of the brood-mares, all that were left of the twelve, and which had been reserved as terrors to the swarms of fiercely hostile natives, were killed and salted for sea stores, and the colonial enterprise was abandoned by those who had survived its disasters. Ojeda succeeded in reaching Jamaica, where he died. However, a San Domingan associate of Ojeda, the Bachelor Encisco, arrived later with re-enforcements and supplies; bringing also several horses and mares, and some sheep and swine. But the vessel was wrecked at the entrance to the San Sebastian harbor, and the live stock was lost to the last beast. Encisco had fallen in with one of the vessels in which the San Sebastian survivors had left the place, and this craft and its people had joined him before he reached San Sebastian. The party now crossed to the opposite side of the gulf, which was part of Nicuesa's allotted territory, where Encisco founded in the spring of 1510 the settlement of Santa Maria de la Antigua (which later became known as Puerto Bello), the site of which lies within the territory of the new Republic of Panama.



Columbus at Hispaniola.
(From an old print.)

Nicuesa, with his fleet of six vessels, sailing from San Domingo on November 20, 1509, also had been beset by the misfortunes of shipwreck, of war with the savages, and by famine, in his search for a home for his colony. After half of his fleet, half of his resources, and far more than half of his men were gone, he, too, had at last entered the harbor where Enciso a little later founded Santa Maria, but had been driven out by a horde of Indians, who killed twenty of his men. Coasting along the shore, they came at last to an open roadstead where they could disembark. "In the name of God," said the disheartened Nicuesa, "let us stop here!" There they landed, calling the place after their commander's exclamation, Nombre de Dios ("Name of God"). But even this failed to afford protection from the bitterly-hostile natives, from disease, and from the pangs of hunger. All of the live stock had been eaten or lost long before. Besieged by the Indians, the people were reduced to the sorest straits for food; and a caravel, with a crew of the strongest, was dispatched for succor, but was never heard of again. Finally they were discovered by a vessel coming from Santa Maria, and Nicuesa and his sixty surviving followers—all that were left of the 750 he had when he sailed from San Domingo—lost no time in embarking on one of his two remaining but rickety and worm-eaten little vessels and in making their way to Santa Maria; leaving Nombre de Dios to the mercy or the vengeance of the Indians.

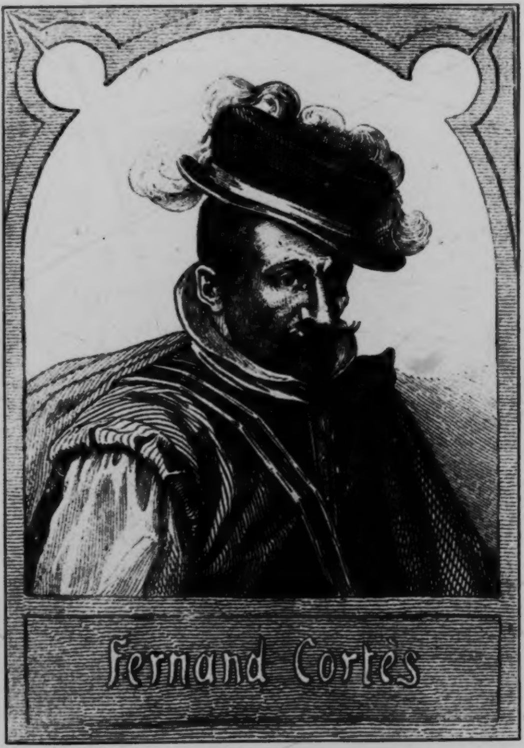
MAR DEL
NORTE
MAR DEL
ZVR
VERAGVA
Coyba
Tatabe

Old Map of the Darien Region.

Within a few years Santa Maria, that had been named in honor of, and dedicated to, "Our Lady of Antigua," became a place of considerable importance, and from it various expeditions had set out to explore the isthmian region, including that of the town's Governor, Vasco Nuñez de Balboa, who discovered the Pacific Ocean on September 25, 1513. For the first time on the mainland of the western hemisphere horses, cattle, sheep, and swine were there introduced under conditions favorable to their multiplication. The natives were as much bewildered and alarmed by the appearance of these animals as the islanders of the West Indies had been, and were especially fearful of the horses, which they supposed to be ravenous unearthly monsters. In turn, the Spaniards themselves were puzzled by the peccary, large numbers of which were in that country, and which they at first took to be a pig. To their disappointment they soon learned that it was not a pig, and that its flesh would not make a palatable food.

The historic expedition of Hernando Cortes to Mexico, under the immediate protection of his patron saint, Peter, sailed from Cuba on February 18, 1519, with 800 men in the company. As it was an enterprise for conquest rather than for colonization, his vessels carried no live stock excepting some horses, of which there was a total of sixteen head. At that time horses were scarce in Cuba, and they were valued at what were considered to be exceedingly high prices, and were not procured easily; for, as already mentioned, the difficulties of transporting them across the ocean in the small, flimsy, and crowded craft of that period were many and serious; and, furthermore, their natural increase in the islands had been very slow. Therefore they were, in the words of one of the Spanish historians, "incredibly dear." From statements contained in depositions at Villa Segura it appears that the cost of the horses for the expedition was "from 400 to 500 pesos de oro." The peso de oro was a gold piece of the value of $11.67 in the present-time gold coins of the United States; and therefore the cost of the sixteen horses was from $4,668 to $5,835 in our current money; or from about $292 to $365 per head—prices that will not appear to our horsemen as having been, under the circumstances of that time, unduly extravagant. How ever, it should be remembered that the purchasing power of money was much greater in that period than it is in our own. But Cortes rightly estimated the importance of having a cavalry force, however small in number, and at whatever cost for the animals, both for active service in the field and for striking terror into the hearts of "the heathen barbarians," whose countries he expected to invade. The high estimation of these horses is further shown by the minute description and information that Bernal Diaz, one of the conqueror's valiant cavaliers, thought proper to give of each animal in his history of the conquest of Mexico.

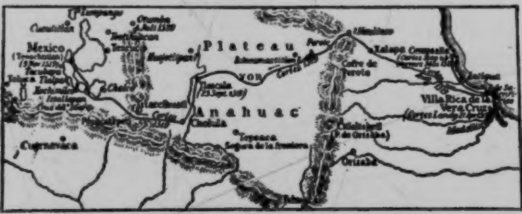
Juan de Grijalva had explored the coasts of the great gulf from Yucatan to Panuco the previous year, and had named the country "Mexico." Cortes sailed over much the same route, and landed on the site of the modern city of Vera Cruz on Good Friday in April, 1519, with his sixteen horses, not greatly the worse for the voyage, nor for a conflict that had been had with the natives at a place where a previous landing was made. Two more were obtained from a Spanish vessel that had followed the fleet to Vera Cruz soon after its arrival there. So, with but eighteen horses at his service, Cortes entered upon his conquest of Mexico.



(*From an old print.*)

In common with the primitive, naked islanders and the almost equally primitive natives of the Darien region, the people of the Mexican coast never before had seen a horse; Grijalva not having had any with him on his voyage of exploration. They, like the others, had no useful domesticated animals, but unlike the others they were partly civilized, and very highly imaginative. Vassals of Montezuma, their peculiar mental development was due to the advance they had made in forms of civilization and religion remarkably well adapted to the propagation and growth of rank superstitions. They could not at first comprehend the nature of a beast of burden, and were astounded and panic-stricken by the strange apparition of the horse and his rider moving in unison and obedient to one impulse. Their imagination was bewildered when they beheld this monstrous combination of man and beast, and their conceptions of it were much the same as those from which the centaur took form in the primitive mythologies of the mental childhood of humanity. But with this difference: the centaur was a single creature, a horse from his feet to his neck, with the perfect upper half of an man's body rising from the shoulders. Had Cortes brought centaurs with him they would have been less appalling to these people than was the horse with a rider on his back. To their minds, benumbed by fear and dread, here was a terrible monster formed by a supernatural union of two powerful and mysterious beings from another world. At will they could disengage themselves, and live and move independently; and then, again, could unite to appear and move and act as one. The form, intelligence, and docility of the larger creature; the commanding bearing, warlike mien, unintelligible language, glittering armor, strange weapons, and white skin of the man; the huge "canoes," with great, outspreading white wings, in which both had come over the ocean; all these combined to make plain to the highly-strung superstitious minds of these people that the horse with a cavalier on his back presented a union of divine beings descended from the skies. But as the coast people offered Cortes no resistance, the Conqueror had no occasion to show them what his cavaliers could and would do in battle; and therefore they did not see the strange monster at his worst.

But there was a different state of affairs when Cortes became engaged in forcing his way toward the capital of the Montezumas. In the interior he encountered a more advanced and even more superstitious people, and the spectacular effect of the horse and his rider was immensely heightened when the two appeared in battle array. The cavaliers were armed and armored, and the horses harnessed and caparisoned, after the heavy fashion prevailing in that period. Tidings of the presence on the coast of a company of mysterious men, some of whom bestrode equally mysterious four-footed creatures—thus becoming monsters of most appalling appearance—had preceded the advance; and as Cortes fought his way, his fearless and destructive horsemen spread horror among the hordes of his opponents. Many of the latter had heard the stories, told with fear and trembling, of the new, singular, and mighty war-lord, in which man and beast were combined, that had come into the country. But none could comprehend what manner of being it was, and all were almost unprepared to face the monstrous apparition when it bore down upon them in battle, with the bright trappings of the horse and the shining helmet and armor of its rider flashing and glittering in the light of the morning sun. As they saw the frightful creature irresistably dashing into and through their ranks, striking them down and trampling them in the dust, while the part that sat astride it slashed and impaled their almost naked bodies with sword and lance, no wonder that they should have regarded it with the superstitious awe and terror felt for a supernatural being endowed with omnipotence. Associating the flash of fire and the crash of sound from the artillery and smaller firearms—implements of destruction theretofore unknown to them—with the presence of the unearthly creature that wrought such havoc in their ranks, they recognized in him a new god of lightning and thunder fighting the battles of men here on earth.



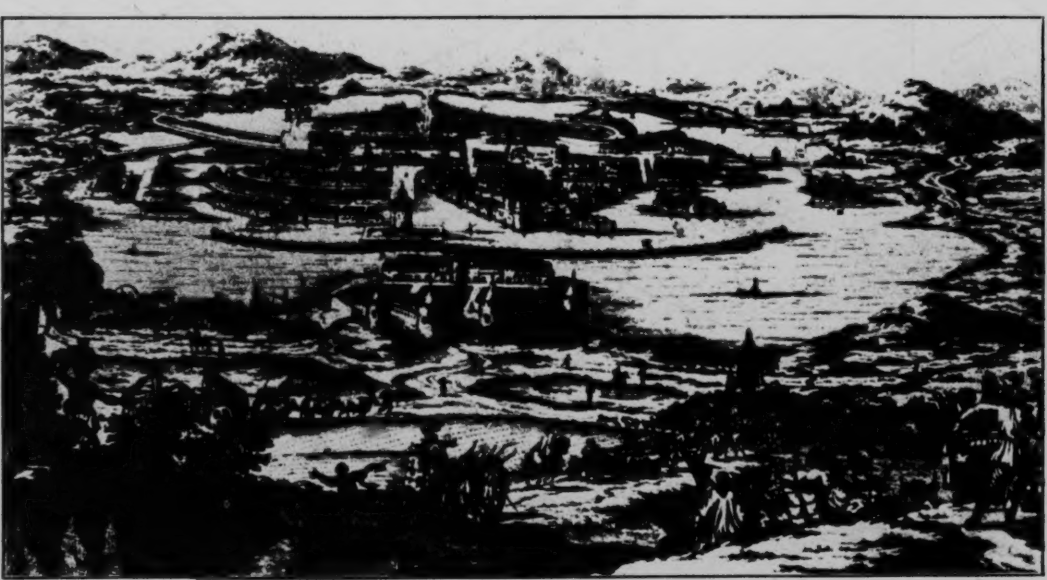
Map Showing Route of Cortes' March from the Gulf Coast to the Aztec Capital.
(*From Johnson's "Pioneer Spaniards in North America."*)

Cortes had given the strictest orders to his cavaliers not to venture the horses wantonly, nor incautiously to expose them to injury or death, for one horse was of more importance to the purposes of the expedition than a score of men. When he had left the coast in August, 1519, he took with him fifteen of the eighteen horses he possessed, leaving the other three in the settlement—the original Vera Cruz—that he had founded not far distant from the place where he disembarked. But despite the precautions to safe-guard them, he lost about one-third of the animals before he got within sight of the capital city. In a two-days' battle with the Tlascalans three were killed, the natives carrying off in triumph the body of one of them after a fierce struggle for its possession. Cutting it in pieces, they distributed the parts as wonderful trophies among the different towns of Tlascala; a circumstance that caused Cortes much apprehension, as it tended to divest the animal of the supernatural character the natives attributed to it. To prevent such a consequence, so far as he could, he had the bodies of the other two buried secretly. In another encounter with the same people a few days later all of the remaining horses were wounded.

The Conqueror entered the city of Mexico unopposed on November 8, 1519, and as its inhabitants gazed on the portentous pageant they saw for the first time the strange animals which superstition and fear had endowed with supernatural powers. But during the ensuing several months of the city's peaceful occupation by the Spaniards, and in the bloody struggles for its possession in 1520 and in 1521, the Aztec warriors decided by experience that the horse and his rider were neither invulnerable nor immortal beings; but by the masses of the people the horse was held in great dread for a long time after the surrender.

Among other tribes in distant regions the animal remained a mysterious object of awe and terror for many years. While Cortes was engaged in his invasion of the Honduras country in 1524–25 he entered the capital of a peaceful community of Mayas at what is now called Lake Peten. These were a gentle, hospitable people, who received the Spaniards in a most friendly spirit. Upon his departure Cortes left with them one of his horses, which had been disabled by an injury. The Indians reverenced the animal, as in some way identified with the mysterious power and character of the white men. When their visitors had gone, they offered flowers to the horse, and, as was told later, prepared for him many savory messes and broths, such as they would have administered to one of their own sick. Under this extraordinary diet the poor beast pined away and died. The affrighted Indians raised his effigy in stone, and, placing it in a temple, did homage to it as to a deity. In 1618, when two Franciscan friars came to preach the gospel in these regions, then scarcely better known to the Spaniards than before the time of Cortes, one of the very remarkable objects which they found was this statue of a horse, receiving the homage of the Indian worshipers as the god of lightning and thunder.

The Spanish horses at the time of Cortes were such as now probably would be classified as rather common stock, without much definite knowledge or pride of ancestry. Most of them were derived from the horses of Barbary, North Africa, in which there were Arabian strains. But in that period intelligent horse-breeding, as we understand it, was but little known in Europe. As a general proposition among the masses of the people, and unless conspicuously deficient, a horse was a horse in those days, and such terms as "blood" and "pedigree" chiefly were employed in connection with the genealogy of the noble and chivalrous person who bestrode it. The four-footed pioneers that were with Cortes were of good height and somewhat heavily built, as they had to be to carry their riders and the heavy extra weight of their own harness and trappings and of the armor and weapons of the cavaliers; and, furthermore, were uncommonly hardy, and capable of enduring much wearing service under great privations. Special mention is made in Bernal Diaz's account of the con-



The City of Mexico after the Spanish Conquest.
(*From an old Spanish picture.*)

quest, of "Motilla," the horse used by Gonzalo de Sandoval, who was the Conqueror's right-hand lieutenant. This gallant steed was well known by every man in the little army, and is said to have been in every way worthy of his distinguished rider, whom he had carried safely through all the long marches and bloody battles of the campaign. He was of a chestnut color, it seems, with a star in his forehead, and, luckily for his credit at that time, with but one foot white. Diaz records that when his comrades would pass unstinted praise on a horse they would say, "He is as good as Motilla." No doubt each of the horses that Cortes brought into Mexico in 1519 had a name, but that of Motilla is the only one that has been preserved in history.

Though the Aztecs were far advanced in a barbaric kind of civilization, they were as destitute of draft animals, beasts of burden, and other really useful domesticated creatures as were the rest of the native peoples of North America. Had their country contained wild animals capable of rendering any important service in subjection, it is probable that they would have domesticated some of them; for they were intellectually qualified to do so. But their country contained no such animals, though they had some partly domesticated jackal-like creatures, to which further reference is made in a later part of this volume, and which the pioneer Spaniards called "dogs."

Soon after the downfall of the capital and government of the Montezumas, Spanish colonists began flocking into the country, bringing with them horses, asses, cattle, swine, sheep, goats, and barnyard fowls, all of which increased rapidly in number under the favorable conditions by which they were surrounded. Cortes, who was a farmer and a live-stock man, as well as a soldier, conqueror and ruler, took possession of great tracts of land near the city of Cuernavaca for his private estates, and devoted himself to bringing them into proper cultivation. Personally he imported horses, cattle, and swine, and a large number of Merino sheep to which the Mexican country was especially hospitable. Cortes had acquired an agriculturally developed an extensive plantation in Cuba soon after that island had been occupied by his countrymen in 1511; and before he had set out for Mexico, he had stocked it with the various domestic animals of Spain, that he imported for it, among which were some that were the first of their kind to be introduced into Cuba. Cortes would seem to have had broader views of the importance of live stock to a successful settlement and development of his country's new possessions than any other Spanish leader in that period, Columbus not excepted.

Within a few years after the downfall of the Montezumas, the Spaniards in Mexico actively became engaged in a series of extended explorations of the vast region to which they laid claim as conquerors. Before the middle of the sixteenth century some of these indomitable people had, as the reader shall see in a succeeding section of this volume, penetrated far into the present territory of the United States, and so opening the way for colonizing the southwestern part of our country.

In most "popular" histories of the settlement of the territory that now forms the great domain of the United States, and also in many of those used in the public schools, much is, and long has been, said concerning what was done along the Atlantic coast, and but little, if anything, about the advances from Mexico into the present southwestern parts of the Union. Therefore, many of our people have become habituated to an impression that it was from our eastern seaboard that all of the pioneer inland explorations and other preparations for colonizing and permanently occupying any part of the present vast area of the country, were made. We are disposed to forget that almost a quarter of a century before any beginning of settlement had been undertaken on the Atlantic coast, the Spaniards had invaded the region now embraced within New Mexico and Arizona, and that Coronado had advanced to the territorial center of the Union of our times. Marcos de Niza entered the pueblo region twenty-three years fore the first Huguenot exiles came to Port Royal harbor, South Carolina; and Coronado followed him in the next year, a quarter of a century before St. Augustine, Florida, was founded by the Spaniards. This was nearly three-quarters of a century before the English settled at Jamestown, Virginia, and eighty years before the Pilgrims landed at Plymouth Rock.

The King Ranch.

Richard King was born July 10, 1825, in Orange County, New York. He died April 14, 1885, after attaining a position, entirely through his own ability, as one of the greatest live-stock men America has known. Within the span of thirty years he founded and developed one of the largest and most perfectly appointed ranches in the United States. This he did, although the first half of his life was devoted to pursuits wholly foreign to the live-stock business. He was attracted to the range when the industry was hardly in its swaddling clothes—before any general market for cattle of the Southwest was known. It was Richard King and men of his character who blazed the trail which thousands of live-stock men have followed to fortune.

On account of the high position history will ever sign to Captain King, and on account of the clear, prophetic vision and practical business judgment which characterized his operations, the biography of this "father of pioneers" in the live-stock industry is of peculiar interest. No aspiring live-stock man can read it without gaining new strength, for it is through learning of the achievements of others that we are encouraged to greater efforts. The knowledge of difficulties conquered, worthy ambitions attained, is one of the most useful lessons the world can learn—a lesson that leads to faith in one's self and to ultimate victory.

At eight years of age, in 1833, Richard King was apprenticed to a jeweler, but the life was thoroughly distasteful to him, and as soon as opportunity presented he ran away and concealed himself in the hold of a vessel that was bound for Mobile, Alabama. On the fourth day at sea he was discovered and led forth before the captain. The heart of the captain was touched by the youthfulness of the stowaway, and the only punishment inflicted was a reprimand. Upon arriving in port, Richard secured service as a cabin-boy under Captain Hugh Monroe. Later he entered the service of Captain Joe Holland, whose vessel plied upon the Alabama River. The Captain proved a true friend and counsellor of the little wanderer, and gave him the only opportunity of attending school that the boy ever enjoyed. He sent him to Connecticut, where he spent eight months under competent instruction, returning to his former position much better prepared to discharge its duties. At the outbreak of the Seminole war, King entered the service of the United States under Captain Penny, and after the troubles were over returned to the steamboat service, operating with Captain Penny on the Chattahoochee River.

CAPTAIN RICHARD KING.

The outbreak of the Mexican war attracted the attention of many adventurous spirits to the Southwest, as it was evident that a new commercial empire was about to be born along the Gulf coast. With a prescience that was one of the leading features of his life, Mr. King, now a stalwart, active, ambitious young man of twenty-two, visited the mouth of the Rio Grande River, and was enrolled pilot of the United States steamer *Corvette*, under command of Captain M. Kenedy.

A sentiment of confidence and friendship sprang up between the two men which, in an important degree, shaped the careers of both. Mr. King continued as pilot of the steamer until the close of the war, and having decided to make Texas his home he soon afterwards bought a steamer, the *Colonel Cross*, and entered upon a profitable carrying business. In 1850 the firm of M. Kenedy & Co. was organized for river traffic and continued for fifteen years. The firm consisted of Captain M. Kenedy, Captain King, James O'Donnell, and Charles Stillman. The business of the company was so successfully managed that at one time it had twenty-six steamers plying on the Rio Grande River. In 1865 the name of the firm was changed to King, Kenedy & Company, and so continued until 1872.

But steamboating claimed only a part of the attention of Captain King. Soon after his arrival in Texas, he made a trip overland from the Nueces to the Rio Grande River. The country was to him a revelation. The rolling prairies, covered at the time with a luxuriant carpet of grass, appeared as verdant as on the morning of creation. Southwest Texas was in some respects a paradise—crude, it is true, and unadorned by the presence and skill of man, but to the imagination of Richard King it presented a range for live stock such as could be found nowhere else on the continent. He resolved at the first opportunity to establish himself upon this virgin range, in the live-stock business.

In order for the reader to understand the conditions prevailing in Southwest Texas at the close of the war with Mexico a retrospection is necessary. The writer is indebted to R. J. Kleberg, manager of the King Ranch, for information as to how the cattle industry became established in Southwest Texas, Mr. Kleberg having, in the course of the past twenty years, made a thorough study from original documents of the history of the region lying between the Nueces and Rio Grande Rivers. This region extends over a great territory, 300 miles north and south, which is destined, as time passes, to come one of the richest garden spots of America.

The earliest record of any land-grant in the portion of Texas named, bears date of 1790, when the Spanish crown gave to Don José Narcissa Cavassas a tract of a 136 leagues of land, embracing more than 700,000 acres. The land is located in what is now known as Cameron County. The grant was made with the expectation that the proprietor would enter into the rearing of live stock; but it remained for Richard King to put into effect the desires of the Spanish conquerors. Various attempts were made at settlement, but the isolated location and the unfriendly attitude of the native Indian tribes prevented their accomplishment. Wherever civilized man has made his home he has brought with him cattle, horses, and sheep as his means of subsistence; and the Spanish colonists brought from the interior of Mexico the animals which were placed upon the range, these animals being the descendants of earlier stock imported from Spain and thus reaching Texas.

The region, however, was too far out upon the frontier of Mexico, and these early pioneers of the industry were forced reluctantly to retire. The mustang, the deer, and the antelope were the only animals that could be seen grazing over the vast prairie. These animals roamed in innumerable herds, numbering hundreds in a single herd. The buffalo was unknown in South Texas. The country had relapsed to its original wildness, when in 1823 Mexico freed herself from the parent country, and the Mexican government began issuing land-patents to her loyal citizens. The patentees brought with them to their new home small herds of cattle from Mexico, but the constant depredations of the Indians prevented all progress in cattle-raising. On the 21st of April, 1836, when the smoke had cleared away from the bloody battle-field of San Jacinto, a new power claimed sway over the region. The Republic of Texas and the Mexican Republic now both asserted authority—a contest which was not finally quieted until the treaty of Guadaloupe Hidalgo at the close of the war between the United States and Mexico. It was at this opportune time that Captain King appeared upon the scene and began the establishment of the first cattle ranch east of the Rio Grande River. While the ground was in dispute it would have been impossible for him to have performed the great work for which he seems by a Superintending Power to have been assigned.

The treaty of Guadaloupe Hidalgo confirmed the sovereignty of Texas, but the State, so vast in extent, was only thinly populated, even in the well-known portions, and little attention was given to the immense prairie regions of the Southwest. The few Mexican rancheros held small herds of live stock, the most primitive methods being in use. The only water upon the range was storm-water, which quickly dried up as summer advanced, and the small herds were watered by hand from wells. Water was raised from the wells by means of the *bantoletta*, or sweep, as may be seen in Palestine to-day. As there was little mingling of herds, the cattle were intensely in-bred, and a peculiar type of old Texas long-horns prevailed. No new blood was introduced, and years later, when cattle were held in pastures, the type deteriorated in even a greater degree into thick necks, big heads, longer horns, and thin bodies. The mustang, deer, and antelope had increased by tens of thousands at the close of the war with Mexico, but the time was ripe for a new dispensation.

Richard King established himself in 1853 at an outpost of civilization. One wonders that any man would have dared to face the dangers of attacks from savage foes and to enter a new and untried field, whose only outcome had been disappointment and failure. But there are stranger experiences in real life than were ever conceived by imagination, and perhaps Captain King builded even wiser than he knew. The nearest military posts were at Houston and Brownsville, and Captain King was thrown, in a large measure, upon his own resources. He became personally acquainted with Robert E. Lee, then a colonel in the United States Army, with headquarters at Brownsville, and received great encouragement from Colonel Lee, who agreed that the future held out glowing inducements to the man who permanently identified himself with Southwest Texas. Mrs. King accompanied her husband to the new home, which was to be protected by a valor possessed only by men and women who voluntarily assumed untried hardships rather than to serve under the protection of civilization. The pioneers and their wives were men and women of action, of achievement. They converted the Indians camps into homes of peace and hospitality, the wilderness into an empire. The visitor to-day, looking upon the cultivated fields, the comfortable homes, and prosperous communities of Southwest Texas, cannot fully appreciate the beauty of the picture presented, except he recall the romantic past, out of which has grown the reality of the present.

From the first, Captain King was an advocate of ownership of the range instead of depending upon the open prairie. He purchased a tract of 75,000 acres, known as the Santa Gertrudes Ranch, in Nueces County. This tract was originally granted by the Spanish crown to Señor José Domingo de la Garza, who lost his life in conflict with the Indians. There was almost an entire absence of domestic animals, and Captain King at once began introducing live stock from Mexico. He introduced cattle, horses, and sheep, employing Mexican herders, and following in many respects the methods of breeding and care which were in vogue among the Mexicans. From cattle thus imported by Captain King the long-horns of Southwest Texas principally had their origin.

From year to year new accessions of land were added to the ranch, so that at the time of his death, Captain King had acquired a holding of 500,000 acres. He was the first to project a ranch along the lines that are recognized to-day as the correct business methods of operating a live-stock ranch. He recognized the importance of improving the breeds and expended large sums of money in grading up cattle, horses, and sheep.

The King Ranch became the rallying point for settlers, and other live-stock men were attracted into Southwest Texas by the success of Captain King. In 1860 his former partner, Captain Kenedy, united with him in the live-stock business, and for eight years they operated together. On account of the magnitude of their business and for convenience, the property was divided, and the march of improvement continued. In 1867 Captain King began enclosing his ranch with fence. Wire fence was then unknown, and he made use of planks at a cost of $500 to $1,000 a mile for fences. Pure blood Durham bulls were introduced from Kentucky, and rams of the highest grade were brought from the North. At one time the herds of the King Ranch were estimated at 100,000 cattle, 20,000 sheep, and 10,000 horses. Captain King was one of the early trail-men, and sent tens of thousands of long-horn steers over the trail to Kansas and Nebraska. In the earlier years the lack of a market for cattle was a serious drawback, but the ingenuity of Captain King overcame this obstacle. He built rendering establishments, brought in barrels by water from East Texas, and shipped the tallow to Galveston, Houston, or New Orleans and the hides to the North. The refuse of the rendering-houses was fed to hogs, and lard was shipped in large quantities to the market. He thus provided money for acquiring additional land from his neighbors, increasing his herds and making extensive improvements. He bought ranches and the cattle upon them outright, and in 1870 began the purchase of the Cavassas grant, a large part of which has since been acquired.

A number of enterprises engaged the attention of Captain King, among which may be named the San Diego, Corpus Christi & Rio Grande Railroad, which was completed in 1880 and afterwards disposed of to the Mexican National Railway Company. He was an advocate of the purchase of a strip of land several miles wide to be known as the "Trail Strip," and to extend from South Texas to Indian Territory or Kansas. The project was informally discussed at the Cattlemen's Convention in St. Louis in 1884, but did not receive the support it merited. The object, according to Captain King, was to prevent interference with trail-herds and also to prevent exorbitant railroad charges. The land, he claimed, would be a good investment as years progressed. Time has shown that his prophecy was true.

Captain King was married to Miss Henrietta M. Chamberlain, daughter of Rev. Hiram Chamberlain, at Brownsville, Texas, on the 10th of December, 1854. The following children were born of Captain and Mrs. King: Robert Lee, deceased; Nettie M., wife of Brigadier-General E. B. Atwood, U. S. A.; Ellen M., wife of L. M. Welton, San Antonio; Richard; and Alice, wife of R. J. Kleberg.

Captain King bequeathed his entire property to his wife as sole legatee and executrix without bond. The ranch has been enlarged until it includes over 950,000 acres, and Mrs. King is known as one of the largest individual ranch-owners in the United States.

The management of the King estate was placed in the hands of R. J. Kleberg after the death of Captain King, and the development of the property has steadily proceeded. A large indebtedness was wiped out early in the course of the new administration, and Mr. Kleberg, educated for the legal profession, and in active and successful practice of law at the time the new responsibility devolved upon him, has shown an ability as a live-stock man which has made his name known throughout the entire country. He belongs to the class that seeks no special recognition, but is ever ready and willing to assist those who deserve it. As a practical business man, he has accomplished great good for Southwest Texas, increasing the value of property many fold, and demonstrating on a large scale that the coast region is capable of producing as fine a grade of cattle as is produced anywhere in the United States. Competent judges of cattle from the North who have visited the King Ranch, are free to acknowledge that there is no large herd of pure-bred Shorthorns in the United States that surpasses the great herd of 12,000 or 15,000 which has been brought forward within sight of the waters of the Gulf of Mexico under the management of Mr. Kleberg. The steers developed on the ranch are of a type which feeders are eager to buy, and

R. J. KLEBERG.

are hailed with favor in the feed-lots, North and South. A carload of cows, not selected with any thought as to unusual weights, driven aboard the cars directly from the grass, averaged 1,200 pounds at the St. Louis market. Literally speaking, hundreds of thousands of one and two year old steers have been sold off the ranch, and the movement continues spring and fall upon a scale whose magnitude is almost incomprehensible to the lay mind. The King Ranch is to-day one of the greatest modern cattle ranches of the world, operated upon a system that approaches the ideal and yielding a revenue under ordinary circumstances that would gladden the heart even of a steel magnate.

Since Mr. Kleberg was placed in charge, as many as 30,000 calves have been branded on the ranch in a single year. He made a division of the cattle in 1886, and the noted pure-bred herd, referred to above, is one of the results. Bulls of the highest grade that money could buy were brought in from breeding-farms of Texas, Kansas, Missouri, Kentucky, Illinois, and other States, and many fine animals were imported from long-established breeding-stations of Canada. Mr. Kleberg early took the position that the best blood in the market was none too good for the King herd, and a number of magnificent animals, awarded the blue ribbon at the great live-stock shows, have been added to the herd. While it is impossible to register such a large herd, the greatest care is taken to prevent in-breeding, and a record is kept of every bull calf set apart for the herd, so that his pedigree is readily known. It requires 2,000 bulls for the thoroughbred and common herds, the bulls for the latter being supplied from the pure-bloods. New blood is introduced each year. In order to maintain the type which he has in mind, Mr. Kleberg has found it necessary to select all bulls and cows himself which are destined for the thoroughbred herd. A constant weeding-out process is carried on, and rejected animals are promptly sent to the market. No money will buy an animal of the highest class from the King Ranch. By this means, and by this means only, can a great herd be built up and maintained.

The entire steer-calf branding of the ranch is generally sold at one time, and the bank check which changes hands is equal to a handsome fortune.

Mr. Kleberg is not in favor of grazing sheep on the same range with cattle where grass is short, and years ago he disposed of all sheep upon the ranch.

At one time he bought 1,200 head of pure-bred cattle to add to his herd, and at another time he increased the herd by 2,000 head of pure-bred Shorthorns. This will convey an idea of the magnitude of the operations on the ranch.

All well informed live-stock men understand that it requires a large and well organized force to perform the work of a ranch whose magnitude approaches that of the King Ranch. A visit to a great live-stock ranch would, to many minds, open a new world—a world as wonderful in its operations as though the actors were living upon another planet. This life upon the range brings one into contact with nature, widens the horizon and instills a loftiness of soul that should be the inheritance of every human being, for in truth, there is greater real happiness in living close to nature than in breathing the smoke and dust of the greatest metropolis.

The King Ranch is divided into two general divisions, one of which is in Nueces County and the other principally in Cameron County. Each division is in charge of a superintendent who appoints the bosses and the latter select their own men. In this way a direct personal responsibility is maintained down to the humblest employee. Each division has headquarters provided with all necessary appliances and comforts and general headquarters, where all reports are received and records kept, are maintained on the Santa Gertrudes Ranch. Telephone lines connect subordinate stations, with general headquarters and wagon outfits for special service are in the field the entire year. The work of the day, week, or month is outlined in advance, and no superfluous energy is allowed to go to waste. All cattle of a particular age or grade are ranged together in a separate pasture, and as the ranches have over 500 miles of fence there is no lack of pastures. The old style of watering the stock from wells by means of leather buckets was superseded by windmills and more recently by artesian wells, of which hundreds are flowing, each of which is capable of irrigating seventy-five acres of land. These wells are of great service, as the country has suffered for years from a prolonged drouth. Mr. Kleberg opened the first flowing wells in that region four years since, and it is now known that great areas in Southwest Texas can successfully be irrigated by subterranean waters from an apparently unlimited supply. This is one of the greatest blessings that the people of any country could desire.

In addition to cattle, the King Ranch produces a large number of horses, and the horse herds are interesting features of the ranch. About 2,000 brood mares are on the range, and the hundreds of horses required for service on the ranch are drawn from the herd. Many are sent to market, and some of the handsomest driving teams in the Southern cities are from the King Ranch. This may be accounted for by the incidents like the following: Mr. Kleberg was present at the San Antonio Fair, where five pure-bred French stallions were exhibited. At the close of the fair he approached the owner of the beautiful animals.

"I would like to propose a trade for your horses," said Mr. Kleberg.

"All right," was the reply, "let 's hear it."

"I will give you 500 horses for your five—100 to 1."

The trade was soon completed.

At one time 4,000 horses were sold to one person from the King Ranch—the largest sale of horses ever recorded in America, aside from Government contracts in time of war.

The settlement of Southwest Texas has brought about a great change of the country, and still more marked changes are now taking place. In the early years, as pointed out by Mr. Kleberg, the country was an immense open prairie, with no trees except along the watercourses. To-day immense areas are covered with mesquite trees, and the range is each year being heavily encroached upon by this wonderfully prolific representative of the vegetable kingdom. The seeds of the mesquite are carried by cattle and horses and deposited upon the ranges, where many of them take root and sprout. Previous to settlement by the white man fires annually swept over the prairies, and young trees were quickly killed off. At present the elimination of the mesquite is one of the problems of Southwest Texas.

The key to the success of Mr. Kleberg in the development of a great herd of cattle is a clear-cut idea as to what it requires to make a good beef animal. This calls for judgment which must be founded upon accurate observation and practical experience. Fortunately for Mr. Kleberg he entered this important field with an unprejudiced mind, and he has aimed to keep constantly abreast of the times by attendance at fairs and exhibitions of live stock and by meeting men who are acknowledged to be competent judges of live stock. His mind is always open for new information and he is ever seeking for it where it may be found. He long since arrived at the conclusion that the bull is more than fifty per cent of the herd, and the selection of the bull is of paramount importance. He has made many observations of great interest to cattlemen. Some of the results may be stated as follows:

A bull that has demonstrated his worth should be left in service as long as he is capable of performing it satisfactorily. The longer a bull is bred to the same dam the more impressive he becomes. The fourth or fifth calf is often more like the sire than the first. The warm-blooded animal matures much quicker than the cold-blooded, is a better feeder, and always commands the high price. Grass-fed cows are now being delivered from the Gulf coast that weigh fifty per cent more than the old Texas longhorn, and the veil that obscures the mysteries of breeding is slowly being raised.

Mr. Kleberg is the pioneer "dip" man. He was the first to suggest the tick as the cause of Texas fever in cattle, and was the discoverer of the buzzard as "the old fraud, attending the funeral in the garb of mourning, but in reality to feast on the carcass and spread the dread disease known as anthrax." As a result of the last named discovery, the Texas Legislature has declared the buzzard an outlaw, and Legislatures of all the States of the Union are being requested to do likewise.

Extensive dipping experiments under charge of the department of animal industry were carried forward upon the King Ranch, where every facility was extended, and the practicability of the dip in destroying ticks was fully demonstrated. The experiments were undertaken after an accidental meeting of Mr. Kleberg and Secretary Rusk, of the Department of Agriculture, at Deer Park, Maryland, where each was sojourning with his family. The Agricultural Department experts had discovered the fever germs in the blood of cattle having Texas fever. Mr. Kleberg had observed that animals attacked by fever were "ticky," and came to the conclusion that the ticks caused the fever. He explained his theory to Mr. Rusk, and an extensive series of tests proved the theory to be true.

Mr. Kleberg is greatly interested in all matters pertaining to the improvement of live-stock sanitary conditions, and from the time of its organization has been a member of the State Live Stock Sanitary Commission of Texas. He was the originator of the movement that led to the organization of the National Association of Live Stock Sanitary Boards, by which leading minds upon this highly important subject are yearly brought together and a unity of action throughout America may be secured. He is a member of the Executive Committee of the Texas Cattle Raisers' Association, a body of which he was formerly president, and is keenly alive to the importance of maintaining in active operation the great agencies by which the industry advances to new conquests, called for by the tremendous strides in all branches of business. He is president of the First National Bank of Corpus Christi, and is an active promoter of the St. Louis, Brownsville & Mexican Railway, which has been constructed along the southwest coast of Texas to the mouth of the Rio Grande River. This railway will in a few years be paralleled by a second road farther inland, and the region named upon the early maps as "The Wild Horse Desert," and claimed successively by the Nomadic Indian, by Spain, by Mexico, and finally gathered into the warm embrace of the Lone Star State, will be the source from which the earliest garden produce will each spring be shipped to the great inland centers of commerce of America.

From a trackless desert to a blooming garden! Captain Richard King's fondest dreams have been more than realized.

Introduction of Live Stock into the Domain of the United States.

Delay of Occupation of Our Eastern Seaboard.—Inland Expeditions of Narvaez and De Soto.—Northward Advance of the Spaniards from Mexico.—French Attempts to Settle on Our Atlantic Coast.—Founding of St. Augustine by the Spaniards.—English Failures in the Sixteenth Century.—Founding of Jamestown and of St. George.—Introduction of Live Stock Into Virginia.—English Settlements and Introduction of Live Stock Into New England and in Maryland.—Coming of the Dutch and of their "Cattle" to New York.—Colonization of New Jersey, of Delaware, of Pennsylvania, of the Carolinas, and of Georgia.—The French in Canada and in the Mississippi Valley.—Discovery and Occupation of Our Pacific Coast.—The California Missions and their Great Herds of Cattle and Sheep.—Character of Our Pioneer Live-Stock Animals.

The delay of occupation of the eastern seaboard of the present territory of the United States would seem to have been unduly long, in view of the tremendous sensation that the Columbian discovery caused among the maritime nations of Europe, and also even among its inland peoples, who had little or no inclination and no open way to engage in seafaring or in colonization. The English, French, and all of the Scandinavians, were able and adventurous navigators, but were very slow to comprehend the significance and magnitude of the opportunities awaiting them in the New World that had been found by Christopher Columbus.

Nearly two-thirds of the sixteenth century had elapsed before anything had been accomplished toward establishing permanent settlements on the Atlantic coast and introducing live stock into that part of the western continent. Between 1496 and 1540 there were many European explorers and adventurers, including some exceedingly tough customers, prowling in ships along the coast up and down all the way from Newfoundland to the Florida Cape; some of these being truly explorers, and others truly prowlers; but none of them a colonizer. Each party made frequent landings, some trafficked with the natives, and several Spanish outfits engaged in a kind of "live-stock" business—that of loading their vessels with Indian prisoners and transporting them to Spain, where they were sold into slavery.

In 1528, the Spaniard, Pamphilo de Narvaez, with 400 men and with about fifty head of horses, landed on the west coast of Florida to explore that country. After wandering about 800 miles, losing many of the men and most of the horses, he came to the coast again at Pensacola Bay. Here he built boats in which to return to Cuba. The surviving horses were killed, their skins used as "sheathing" for the boats, and their flesh salted for food. Narvaez and all but four of his men were lost in the Gulf. These survivors, the most famous among whom was Alvar Nuñez Cabeza de Vaca, after several years made their way from southern Texas into New Mexico and thence to a Spanish settlement on the western coast of Old Mexico. Narvaez's horses were the first that set foot within the present boundaries of the United States. In 1539 Hernando de Soto landed in Florida from Havana with 600 men and more than 200 head of horses. Proceeding northward through Florida and Georgia and thence westward, the company crossed the Mississippi and pushed farther westward to the Ozark Mountains. Returning to the river, De Soto died there, near the site of the city of Natchez, in June, 1542. His followers vainly then attempted to reach Mexico by land, and, after roaming an unknown distance into the west, retraced their steps, and at the river built boats in which they finally reached a Spanish settlement at the mouth of the River Panuco in Mexico. Most of the horses and half of the men had perished from one cause or another before the surviving adventurers set out for the Gulf in their rickety vessels.

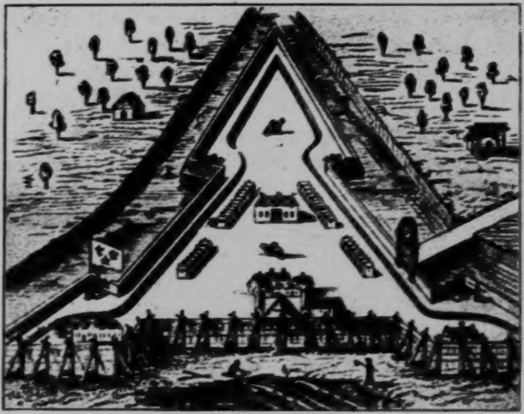
According to that remarkable work, Richard Hakluyt's "Collection of Voyages" (1598–1600), De Soto had brought to "Florida" from Cuba, among other provisions for his expedition, "manie hogges," which had increased to "manie" more by the time the slow-moving caravan reached the Mississippi. After De Soto's death command of the expedition fell upon his lieutenant, Louis de Moscoso, who caused all of the dead leader's effects to be sold at auction to the surviving cavaliers of the party. Of this transaction, which, if the story be true, included the sale of what was, under the circumstances, a surprising number of hogs, Hakluyt, in his "Relation of Such Things as Don Ferdinando de Soto, the Adelantado of Florida Passed in Seeking to Conquer the Said Countrey," says:

"Luys de Moscosa caused all the goods of the Governor to be sold at an outcrie: to-wit, two men slaves, and two women slaves, and three horses, and 700 hogges. For every slave or horse, they gave two or three thousand ducats: which were to be paid at the first melting of gold or silver, or at the division of their portion of inheritance. And they entered into bonds, though in the Countrie there was not wherewith to pay it within a yeere after, and put in sureties for the same. Such as in Spaine had no goods to bind, gave two hundred ducats for an hogge, giving assurance after the same manner. Those which had any goods in Spaine, bought with more feare, and bought the lesse. From that time forward, most of the company had swine, and brought them up, and observed Fridaies and Saturdaies, and the evenings of feasts, which before they did not. For sometimes in two or three months they did eate no flesh, and whensoever they did come by it, they did eate it."

When, in the summer of 1543, Moscoso and his men were building boats, or "brigandines," in which to leave the country by way of the Mississippi River to the gulf, the Indians "came oftentimes with presents of mantles, and fish, and hogges which bred in the Countrie of some swine that were lost by the way the last yeere." Upon the Spaniards' departure in their crazy boats "they shipped 22 of the best horses, that were in the camp, the rest they made dried flesh of; and dressed the hogges which they had in like manner. They departed from Minoya the second day of Julie, 1543."

In a preceding section we referred to the advance of the Spaniards from Mexico into the southwestern part of the present territory of the United States. The first of these expeditions was led by Friar Marcos de Niza, and reached the pueblo region of New Mexico and Arizona in 1539. Upon his return to the Spanish settlements in Mexico, Marcos told wonderful stories of the richness of the country he had visited, and of the great wealth of its people in gold and other things of large value. These fabulous tales inspired the famous expedition of Coronado in 1540–42, which passed through New Mexico from the southwest and proceeded a long distance northeastward; being generally believed to have penetrated the country as far as Eastern Kansas or Eastern Nebraska, though some writers affirm that it reached the Missouri River. Santa Fé, then an old pueblo Indian town, was visited by Coronado in 1542, and a mission was established at El Paso, on the present Mexican side of the Rio Grande, in 1580. In 1591 Oñate, of whose work as a colonizer some particulars appear in an after part of this volume, founded a settlement on the Chama River, a tributary of the Rio Grande to the northward of Santa Fé, and which was provided with sheep, cattle, horses, and swine; and, as heretofore mentioned, he founded Santa Fé in 1605. In the meantime several other Spanish settlements had been made in that general region, all of which were supplied with live stock, sheep being the more numerous. By 1640, when Santa Fé became the capital of the new province, the Spaniards had become well established in New Mexico, and their stock, especially the sheep, had multiplied rapidly. An old-time writer, referring to Spanish colonization methods, says that "it was the custom of that nation to forget nothing that might be necessary for settlement."

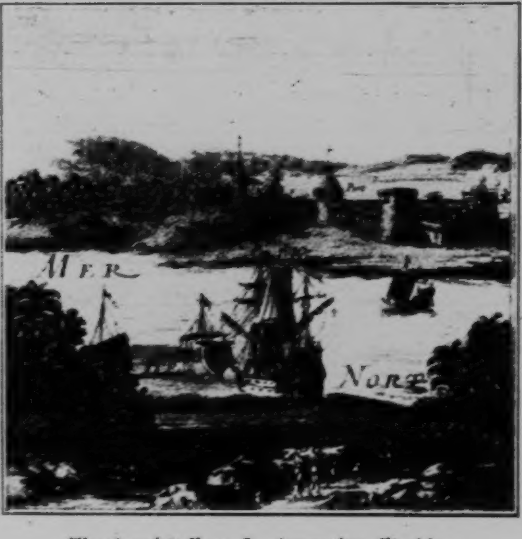
About 1540, a company of French fur-traders built a fortified trading-house on Manhattan Island (New York city), and afterward partly built another, on an island in the Hudson River near the site of the city of Albany. These people did not attempt to found settlements, and it is not probable that they had any live-stock with them. When the French abandoned their claims to the Hudson River region in 1543, these traders withdrew. In 1562, a colony of about thirty exiled French Huguenots, who are not supposed to have had any live-stock, built a small fort near the site of the present Port Royal, South Carolina, and attempted to establish a settlement under its protection; but famine caused the undertaking to be abandoned about a year later. In 1564, another colony of Hugenot exiles built Fort Carolina at the mouth of the St. John's river, in Florida. As this colony received additions by two expeditions from France in the first half of the year 1565, which increased the number of men, women, and children to above 200, it is believed that they were provided with some live-stock; but there is no definite record for or against that belief.



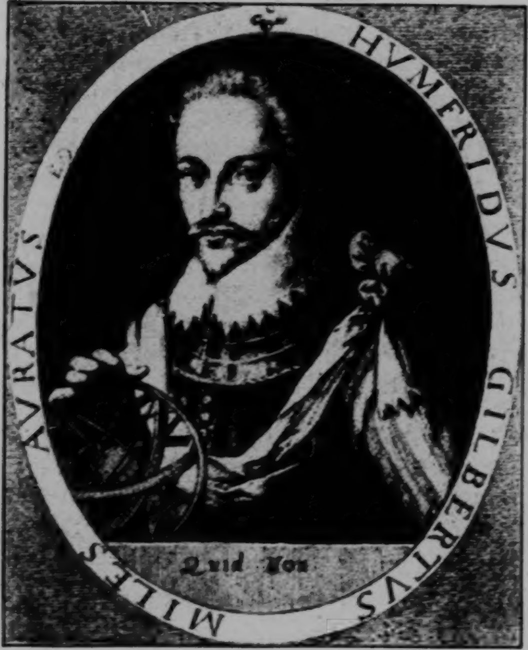
Fort Carolina, at the mouth of the St. John's River, Florida, in 1565.
(From an old print.)

An expedition from Spain, under Menendez, founded St. Augustine, in Florida, in September, 1565; and straightway attacked the Huguenot settlement at Fort Carolina, captured the Fort, and massacred nearly all of the people, only a few escaping. This atrocious affair resulted in making St. Augustine the oldest permanent settlement by Europeans within the present borders of the United States. Soon after the founding of St. Augustine some horses and cattle were introduced there, and also a considerable number of sheep, which are supposed to have been of the "churro" breed—the common sheep of Spain in that period. Within a few years the Spaniards began building at St. Augustine Fort San Marco, that still exists and is now Fort Marion. Its walls are of a conglomerate stone, and its construction, that was interrupted frequently, covered [illegible] period of about 100 years, all of the labor being done by Indian slaves.

The English people would seem to have been exceptionally dilatory in securing a foothold in the New World, and it was more than a century after the Columbian discovery before they succeeded in doing so. Sebastian Cabot had sailed from Bristol, England, in May, 1498, with two ships and about 300 people—mostly convicts from the jails—to establish, as has been said by some historians, an English colony in North America. But, as Cabot took his colonists, or what was left of them, back to England on his return voyage, it is doubtful whether this really was a genuine colonization enterprise. Therefore, the expedition of Sir Humphrey Gilbert stands in history as the first attempt of the English to found a colony in the New World. In 1583, Gilbert, having been aided by his stepbrother, Walter Raleigh, and encouraged by



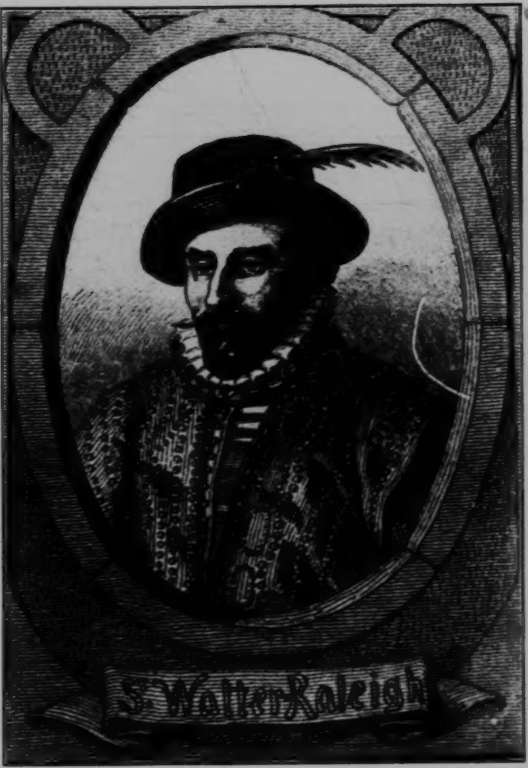
The Spanish Fort, St Augustine, Florida.
(From an old print.)



Sir Humphrey Gilbert, the first English Colonizer in America.
(From an old engraving.)

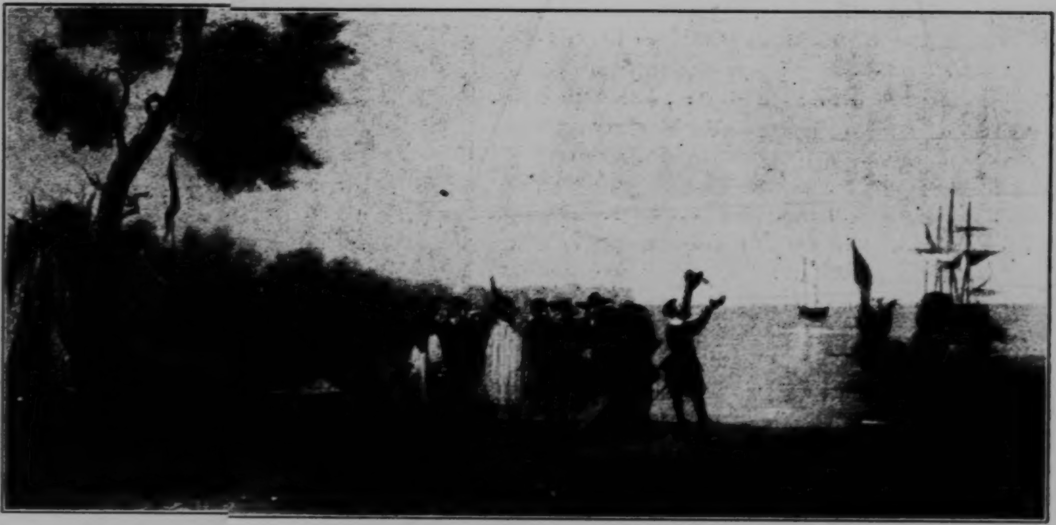
Queen Elizabeth, crossed the Atlantic with a fleet of five small vessels and a fair company of people, to make a settlement in Newfoundland. Ill-fortune attended the enterprise, and in the autumn Gilbert decided to return to England with the survivors of his colony. Three of his ships had been wrecked on the coast, and of the two he had left one, the *Squirrel*, was of but ten tons burden. At sailing time the people wanted their leader to go in the larger vessel, which was safer; but Gilbert refused to do so, saying: "Be of good cheer, my friends; it is as near to heaven by sea as by land." One night, out upon the the ocean, the *Squirrel's* lights went out, and nothing was ever again seen of her or her company. The other vessel reached England after a troublesome voyage; and so ended the first English attempt to plant a colony in America. In 1584, Walter Raleigh dispatched two vessels, under Captains Philip Amadas and Arthur Barlow, that visited the islands in Pamlico and Albemarle Sounds, North Carolina. The captains laid claim in the name of their "virgin queen," Elizabeth, to all of the country from the Spanish settlement in Florida in the south to Nova Scotia in the north, and extending westward indefinitely; and to which Elizabeth later gave the name "Virginia." In recognition of Raleigh's services in connection with this expedition Elizabeth made a knight of him. Amadas and Barlow returned to England late in that year, and in 1585 Sir Richard Grenville, acting for Raleigh, with a fleet of seven vessels and about 100 emigrants, all of which were men, planted a colony on Roanoke Island in Albemarle Sound, under Ralph Lane, and then returned to England. These people, after having inflamed the Indians by slaughtering many of the latter, were taken back to England by the English explorer, Sir Francis Drake, in 1586. A few days after Drake's departure, a vessel, dispatched by Raleigh, arrived with a supply of stores for the colony, but finding the island deserted, immediately returned. Scarcely had this vessel departed, when Sir Richard Grenville arrived with three ships. After seaching in vain for the people he had left there the year before, he likewise returned, leaving fifteen men on Roanoke Island to keep possession of the country. In the spring of 1587 Raleigh, still determined to found in the New World a city that should bear his name, sent out his fourth expedition, under Captain John White, and conveying a colony of 108 persons, among whom were some women and children. When these new-comers landed on Roanoke Island, they discovered that all of the fifteen men that had been left there in the previous year by Grenville had been killed by the Indians. But having resolved to stay, they built a fort and laid the foundations of a city to be called "Raleigh" (but not the present city of Raleigh); and in that fort soon after its completion, Virginia Dare, the first English child born in America, came into the world. Commander White returned to England in the autumn of 1587, and in the spring of 1588 Raleigh dispatched two vessels with reinforcements and supplies for the Roanoke settlement, but they were driven back by the Spaniards. In 1590 White again sailed from England for Roanoke to strengthen the colony, but upon his arrival found that the settlement had been abandoned. The fate of these colonists has never been ascertained, but, whatever it may have been, it put an end to English colonization enterprises for that century. It is not known definitely that these Roanoke settlers had live stock with them, but probably they had.

In 1602, Bartholomew Gosnold explored the coast of Massachusetts and Rhode Island, and discovered several islands, one of which he named Martha's Vineyard. Here he built a fort, and his people are said to have planted wheat, barley, oats, and beans—the first English attempt at agriculture in America. But if they did so they could not have reaped their crops, for they returned to England in midsummer of that year, because of the threats of the Indians and the scarcity of supplies; abandoning their settlement just as the Northmen had abandoned theirs in Vinland centuries before. However, the favorable report Gosnold made of the country encouraged the colonization spirit in England. The record is silent as to whether he had any live-stock on Martha's Vineyard. In 1606, King James I. granted two patents to colonize "Virginia"; one for southern "Virginia" to the "London Company"; the other for northern "Virginia," to the "Plymouth" or "West of England Company." In December of that year the London Company sent out to the new country three ships, respectively under the command of Christopher Newport, Bartholomew Gosnold (he of Martha's Vineyard), and John Smith. These vessels arrived in Hampton Roads in April, 1607, and in May the colony founded Jamestown, the first permanent English settlement within the present borders of the United States, and also the first by the English in the New World. Of the 105 persons in this expedition, who were destined to remain at Jamestown, there were no men with families, only a dozen or so who were considered to be laborers, and but very few mechanics and farmers. The others consisted of "gentlemen of fortune," and of persons of no occupation and of idle and dissolute habits, who had been tempted to join the enterprise through curiosity or the hope of gain; the company, as a whole, being very poorly calculated to plant an agricultural settlement in a wilderness. The English were received kindly by the Indians in the immediate vicinity of Jamestown, and who, when informed of the wish of the strangers to remain in the country, told them to take possession of all of the land they wanted. The West of England Company sent out, in 1607, two ships under Raleigh, Gilbert and George Popham, to colonize "northern Virginia." There were but forty-five emigrants on the two ships, and these were landed on the site of the city of Kennebec, Maine. But owing to great hardships and general discouragement, this puny settlement, which had been named St. George, was abandoned in 1608, and those who had survived the year of trial returned to England.



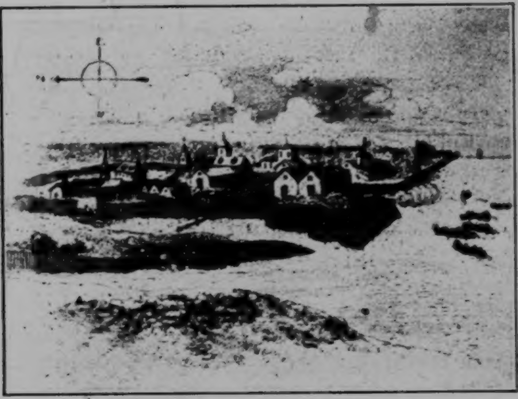
(From an old print.)

It does not appear that either the southern or the northern colony was provided with live-stock when it landed. Each was an ill-advised and ill-equipped undertaking. Within three months after the Jamestown people had disembarked their provisions began to run short, and the Indians had been given cause to manifest hostility instead of their former friendliness; and to make the bad state of affairs still worse, the diseases of a damp and sultry climate swept away about one-half of the colonists before autumn, among the victims being Captain Gosnold, who was the original projector of the settlement, and really its most valuable man. By the following spring the number was reduced to forty, but at that time these survivors were reinforced by 120 new emigrants. These were mostly "gentlemen," refiners of gold, goldsmiths, jewellers, and the like, with but few laborers, and no farmers or live-stock men. The gold-workers came because it had been understood in England that the Jamestown country abounded in gold; and probably this accounts for the failure to bring live-stock to the settlement in that year. In 1609, nine vessels were dispatched from England to Jamestown with more than 500 emigrants, and with horses, cattle, sheep, and swine, all of which soon made themselves entirely at home in the new country. The cattle multiplied rapidly, a result largely due to legislation that made the killing of any of them a very grave offense; but the sheep for a few years suffered greatly from the ravages of wolves, and therefore the flocks were kept down to small numbers. The horses and the hogs seem to have done very well from the start; especially the hogs. Of the latter, it is said that 600 head (most probably an exaggerated number) were brought to Jamestown in 1609, the larger part of them, it is said, having been turned loose to roam the country at will. It was from this stock that the present "razor-back" hogs of the Virginia and North Carolina mountain districts had their descent. Jamestown received further accessions to its population in 1610, and again in 1611, which confirmed the permanency of English occupation of Virginia. With these new-comers came, also, important additions to the stock of domestic animals; Sir Thomas Gates, alone, having brought 100 head of cattle from Devonshire and Hertfordshire in 1611. Within a few years thereafter the James River settlements had become fairly supplied with all kinds of live-stock, although the wolves continued to cause much trouble among the sheep.



Landing of the English Settlers at Jamestown, Virginia, in 1607.
(From an old engraving.)

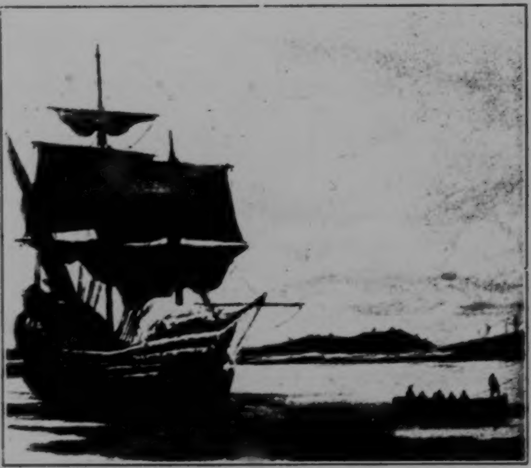
After Jamestown and St. George nothing, aside from some explorations of the coast between Virginia and Nova Scotia, was attempted by the English toward further colonization in the immense area of country that had been called "Virginia," until 1615, when Thomas Hunt, employed by some members of the Plymouth or West of England Company, sailed from England with the design of establishing a colony in what is now New England. In his first effort a violent tempest forced him to return. Again setting sail, his crew became mutinous, and he was at last intercepted by French pirates, who seized his ship and conveyed him to France, and caused the collapse of his enterprise. In 1620, the "Pilgrim Fathers," after many tribulations in preparing for their flight to the New World, and after their original company had been much reduced in number, sailed from Plymouth, England, in the small ship *Mayflower*, and landed at Plymouth Rock, Massachusetts, on December 21st; 101 persons in all, one of whom was accidentally drowned in landing. They had obtained a grant of land from the London, or Virginia, Company, but for this had been denied approval of the king. When they sailed they expected to settle somewhere in the Hudson River country, but when they sighted Cape Cod the wintry storms had already commenced, and the dangers of navigation along that almost unknown coast at that inclement season compelled them to seek a nearer landing-place, which was found at Plymouth Rock. This colony experienced extreme hardships, and before that winter closed nearly one-half of the people had died from exposure or from illness arising directly from it. In 1623, three Devon heifers and a Devon bull were imported from England by Francis Winslow, but the first general importations of live-stock into Massachusetts were made in 1624, when horses, cattle, sheep, and hogs were brought across the sea to the Pilgrims' settlement. The foremost stock-man among these pioneers was "one Henry Hope," who was said to have had ten cows; a possession that made him a distinguished man.



Jamestown, Virginia, in 1622.
(From an old print.)

Many English settlements in New England soon followed the coming of the Pilgrims to Massachusetts. Dover and Portsmouth, New Hampshire, were founded in 1623, and a few years later cattle were imported there direct from Holland, Denmark, and Sweden. In 1624, York, Maine, was settled; Bristol in 1626, and Biddeford and Saco in 1630. Saybrook and Hartford, Connecticut, were founded in 1635; Providence, Rhode Island, in 1636, and Newport in 1638; several additional settlements having been made in Massachusetts in the meantime. By 1640, 21,200 emigrants had come into the territory of our New England States, and about fifty towns had been established; and this occupation of that part of the country had also given a considerable distribution to our domestic animals.

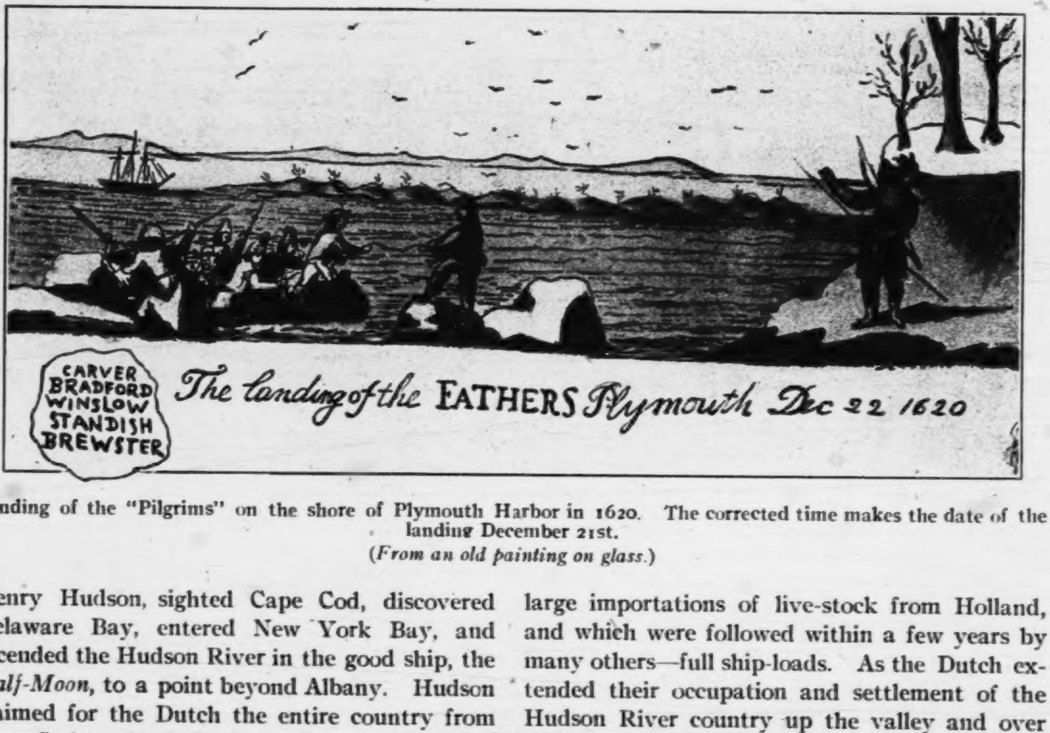
In the south, English occupation had not been much extended beyond the settlements on the James River in Virginia, prior to 1640; but the population of these settlements at that time was above 10,000, and the people had "much cattle."



The "Mayflower" in Plymouth Harbor.
(From a photograph of a painting in the Boston Public Library.)

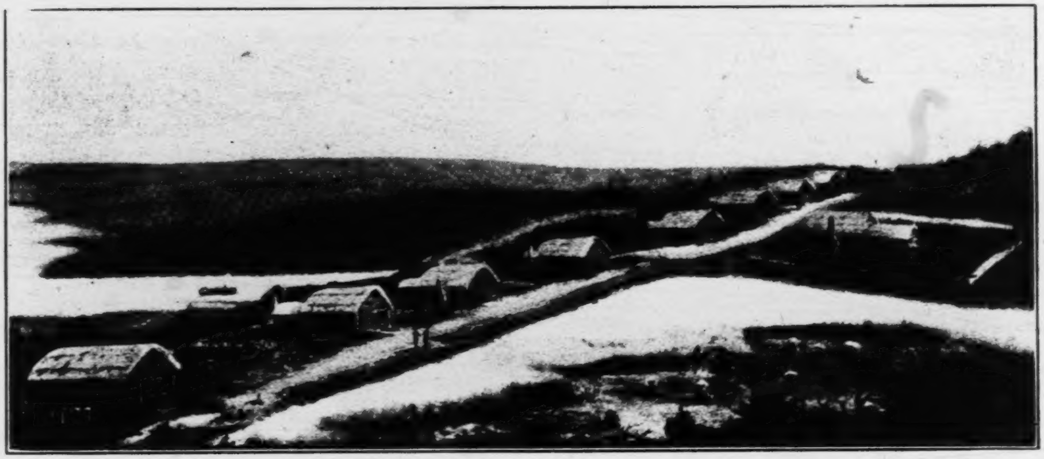
Under a grant made in 1632, by Charles I. to Sir George Calvert (Lord Baltimore), Leonard Calvert, brother to Lord Baltimore, with about 200 emigrants, mostly Roman Catholics, sailed from England late in 1633. Entering the estuary of the Potomac River early in 1634, he founded the town of St. Mary's, near the mouth of that river. This practically was the beginning of the settlement of Maryland and of the introduction of live-stock into the domain of that State; although a trading-post had been established on Kent Island in Chesapeake Bay by William Clayborne in 1631.

In 1609, an Anglo-Dutch expedition under Henry Hudson, sighted Cape Cod, discovered Delaware Bay, entered New York Bay, and ascended the Hudson River in the good ship, the *Half-Moon*, to a point beyond Albany. Hudson claimed for the Dutch the entire country from Cape Cod to the Delaware, and named it "New Netherlands." In 1610 the Dutch built a few rude hovels on Manhattan Island—the beginning of New York City—and in 1614 constructed there a small fort or trading-post. In 1623 a colony came from Holland and settled under the guns of the fort, giving the name "New Amsterdam" to the embryo metropolis. This colony brought a number of horses with them, and which were the first on Manhattan Island, or in the New Netherlands country. But these pioneer Dutch had rather more of the character of traders than of true settlers depending upon the products of the soil and upon live stock for their subsistence. Their shewdness in trade was demonstrated by their "purchase" from the Indians in 1626 of the whole of Manhattan Island for trumpery "goods," worth sixty "guilders," or about twenty-four dollars. Still, this was better than the methods of the Spanish and English, for these people seldom recognized any Indian rights in or title to the lands upon which they settled. Some cattle had been brought to New Amsterdam in 1625, but in 1627 the Dutch made large importations of live-stock from Holland, and which were followed within a few years by many others—full ship-loads. As the Dutch extended their occupation and settlement of the Hudson River country up the valley and over the general region around Albany, they became very thrifty farmers and stock-raisers.


CARVER
BRADFORD
WINSLOW
STANDISH
BREWSTER
The landing of the FATHERS Plymouth Dec 22 1620

Landing of the "Pilgrims" on the shore of Plymouth Harbor in 1620. The corrected time makes the date of the landing December 21st.
(*From an old painting on glass.*)

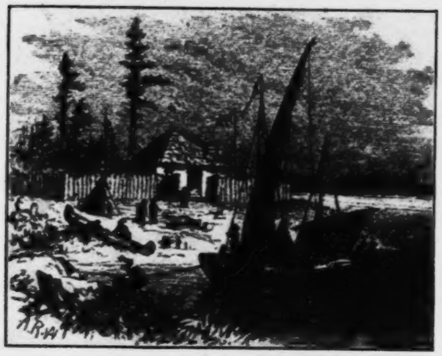
The Dutch had built a fort near the site of Camden, New Jersey, in 1623, but abandoned it a few years later. In 1624 some colonies of Danes settled in New Jersey, and were followed in 1630 by Swedish emigrants. In 1631 a Dutch colony of about 300 people was established on the site of Lewiston, Delaware, but all of them were slain by the Indians in 1632; and the same fate had befallen many of the Danish and Swedish Colonists in New Jersey. In 1637 a large company of Swedes and Finns came into the Delaware Bay, and in 1638 built Fort Christiana near the site of Wilmington, Delaware; and purchased the Indian title to the country from Trenton Falls to Cape Henlopen, made a settlement at Wicaco on the site of Philadelphia, and claimed all of the region round-about as "New Sweden." This resulted in the permanent occupation of western New Jersey, of eastern Pennsylvania, and of Delaware. All of these Danish, Swedish and Finnish people were provided with horses, cattle, sheep, and swine; the Swedes having introduced sheep into New Jersey in 1630. The first of William Penn's colonies was not established in Pennsylvnia until 1681, but his people gave much attention to sheep, and within a few years made of their rearing a special industry.



Plymouth, Massachusetts, in 1622.
(From a photograph of a painting.)

The country now embraced by the States of North Carolina and South Carolina long was neglected by colonists after the unhappy results of the attempts to establish English settlements on Roanoke Island in 1585–90. As already mentioned, these colonists had disappeared—all probably have been massacred by the Indians. However, in 1640, a lone fugitive from Virginia had established himself on the shore of Albemarle Sound. In 1663, Geoge Cathmaid, under a grant from Charles II. to him and his associates located a colony of sixty-seven persons on the Chowan River, and in 1665 another colony was established near the site of the present city of Wilmington, North Carolina. These settlements were the work of Protestants from Virginia, who would not obey the Church-of-England rules there, of Presbyterians from Scotland, and of Quakers from England; and from these beginnings the present State of North Carolina arose. But progress in this early period was very heavy-footed, and that century closed before much more had been accomplished. Live-stock was brought from Virginia and some was imported from England, but the increase of domestic animals in the North Carolina settlements was very slow for many years. The unfortunate French Huguenots of 1562 had named their fort at Port Royal, South Carolina, "Fort Carolus," in honor of their king, Charles IX., and for about 100 years the region between the Albemarle Sound and the mouth of the St. Johns River in Florida had been known by the name, Carolus (Charles); but after the English asserted their claim to the country by making these settlements, they changed Carolus to "Carolina," in honor of the king of England. In 1729 "Carolina" was divided into North Carolina and South Carolina.

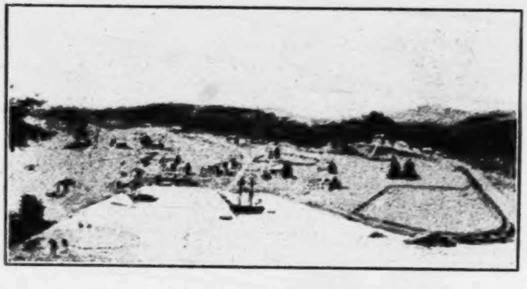
The first attempt to found a colony within the bounds of the present State of South Carolina was that of the Huguenots in 1562, to which reference already has been made. With that failure the country remained neglected until 1670, when three ship-loads of emigrants, mostly French Huguenots, sailed from England and settled on the Ashley River, where they founded a town which they called Charles' Town (the "old Charleston), but which afterward was abandoned. In 1679, Charles II., at his own expense, sent a colony of foreign Protestants to the country, and later in that year an Irish colony, under Ferguson, went there. All of these settlers were well supplied with live-stock by importation and by drafts from Virginia, to the rearing of which they gave a great deal of attention. In 1680, the present Charleston was founded by a colony of English people under John C. Culpepper, and who are described as having been "graziers"; the first and only group of colonizers of the New World who are distinctly designated as pastoral people. But, from causes similar to those which retarded North Carolina, this part of the old Province of Carolina did not attain much development until the following century.



Clayborne's Trading Post on Kent Island, Chesapeake Bay, in 1631.
(*From an old print*)

Georgia was the last of the thirteen colonies from which the United States sprang. In England, at the time of the accession of George II. to to the throne, there lived James Oglethorpe, the man who dragged into the light of day the terrible abuses to which the debtor laws were put; and who, aided by other good men, provided refuge in America, where those whose only crime was poverty could be placed upon their feet and given a chance to take care of themselves. In 1732, the year of George Washington's birth, Oglethorpe and others, twenty-one in all, procured from the king a grant of the unoccupied lands in that part of the South Carolina province south and southwest of the Savannah River; this country to form a new province. In 1733 the name of "Georgia" was bestowed upon it in honor of the king. In January, 1734, Oglethorpe temporarily landed his first company of colonists at Beaufort, South Carolina, but in February of that year removed them to the site of the city of Savannah, which thus became the first settlement in the new province, and which then received its present name. These settlers were fairly well provided for, but they became discontented, and murmured constantly. There was trouble and war with the Spanish in Florida, and after about twenty years of thankless labor the weary and discouraged Trustees of Georgia surrendered their trust to their king, and Georgia became a royal province in 1752. Though the pioneer settlers of Georgia, and others who came later, were under the especial patronage and fostering care of the English government, it was a long time before they made much headway in developing and stocking the country.

It would seem that it should have been from the Atlantic coast English colonies that the pioneer explorers and settlers of the vast empire beyond the Alleghany Mountains went forth into the west. But it was not so; and there were many reasons why it was not so. Among these were the jealousies and animosities between colonial leaders, and the spirit of hostility between colonies, that kept their partisans restrained within their own localities. Furthermore, their home governments were seldom at

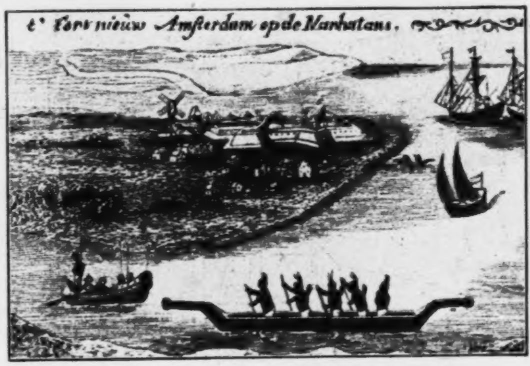


Moale's Sketch of Baltimore, 1752.
(*From an old print.*)

peace with each other, and therefore the colonists had good resons for staying near the coast where they could more readily be in communication with the course of these events. Beside these reasons, the mountains appeared to be, as far as they had any knowledge of them, serious barriers across the ways to the west; but the difficulties they interposed were greatly magnified, and remained almost unknown until past the middle of the eighteenth century. However, the most serious obstacle was the savage hostility of the Indians. Shameful and murderous outrages upon them, and for which the Spanish and English people were chiefly responsible, had, after many years of suffering under these brutal wrongs, made of almost every Indian tribe east of the mountains, the most cunning and deadly of foes. The French were the people who opened the way into the heart of the country and who first fully appreciated its magnitude and enormous natural resources. Having taken possession of that part of it bisected by the St. Lawrence River flowing from the chain of great lakes far in the interior, they had few physical difficulties to overcome as they advanced westward; and, what was of almost equal importance, their policy in dealing with the Indians was one of friendliness, honesty, and peace.

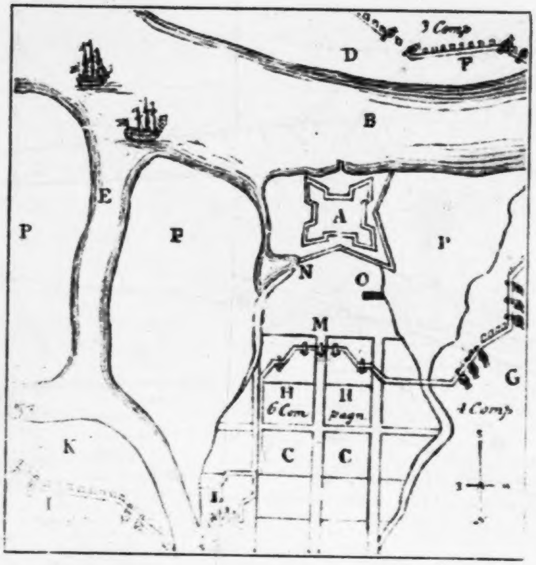
The "Half-Moon" ascending the Hudson River.
(From an old engraving.)

As early as 1504 French mariners established fisheries off Newfoundland and Cape Breton, and frequented the Gulf of St. Lawrence. In 1508, French explorers discovered and named the River St. Lawrence, and ascended it about 180 miles; and in 1524 other French explorers coasted America from the Gulf of St. Lawrence to the Hudson River, claimed all the intervening country for France, and named it Francesca. Ten years later Jacques Cartier took possession in the name of the French monarch of all of the St. Lawrence Gulf region; and in 1535 sailed up the St. Lawrence River to the site of Montreal, and added all of the river region to his preceding claims, calling the country "New France"; and in 1541 erected a temporary fort on the site of Quebec.

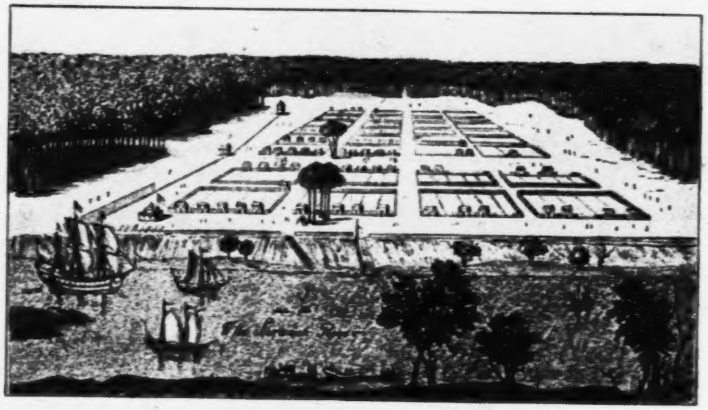

t' Fort nieuw Amsterdam op de Manhatans.

Earliest Known Picture of New Amsterdam (New York city).
(From an old print.)

After the Florida colony of Huguenots had been massacred by the Spaniards in 1565, the French made no other attempts to establish colonies on the southerly coast of North America, but turned their attention to the regions of the St. Lawrence Gulf and River in the north. In the last quarter of that century a few small settlements were made by fishermen on the coast of Acadia (Nova Scotia), but it was not until 1603 that Champlain founded Quebec, the first permanent settlement in what is now Canada proper. In 1605 the French founded in Nova Scotia the town of Port Royal, which grew to be the capital of the Province of Acadia, in the harbor of which their fishing vessels, at that time several hundred in number, found shelter. Port Royal was a year old before King James, of England, granted patents to the London Company and the West of England Company. Montreal was founded in 1640, and in 1654 two French fur-traders went in canoes by way of the Ottawa River and a short portage to Lakes Michigan and Superior. In 1659 other fur-traders established themselves on the shore of Lake Superior and wintered there. In the meantime these inland explorers, and the fur-traders, had been joined by some of those remarkable and devoted men, the French Jesuit missionaries, the value of whose services to their countrymen, and to the cause of humanity, in dealing with the Indians, were so inestimable. Through their influence over the savages, which they established by kindliness, honesty, and genuine and unselfish interest in their welfare, the way was opened throughout the lake region and the Mississippi River country north of the Ohio to the intrepid French explorers; but in many instances these Jesuits went ahead of the others, and were explorers as well as missionaries. As early as 1611 some of these self-sacrificing priests entered the interior of the region that the French had named Acadia (Nova Scotia), and began religious work among the natives; and in 1625 a large company of them sailed from France to Canada, where they engaged industriously in the same kind of work. In 1660 Rene Mesnard, a Jesuit missionary, went to Lake Superior to found a mission, but was lost in the forests of the lake's shores in 1661, and was seen again no more. In 1668 Fathers Claude Dablon and Jacques Marquette founded the mission of Sault de Ste. Marie on the St. Mary's River, the oldest European settlement in what was once our old "Northwest Territory." In 1669 La Salle explored Lakes Ontario and Erie, and, crossing from the latter to the headwaters of the Ohio, descended that stream to its falls at Louisville, Kentucky. In 1671 Father Marquette established a mission at St. Ignace, Michigan, where he sheltered and protected the remnant of the Huron Indians. In 1673 he and Louis Joliet, coming from St. Ignace, descended the Wisconsin River in a canoe, discovered the upper Mississippi River, and set foot in Iowa. Continuing their journey, they explored the Mississippi to a point below the mouth of the Arkansas, from which they returned, and, ascending the Illinois River, made their way back to the head of Lake Michigan. In 1675 Marquette went to the central part of Illinois to labor for the conversion of



Plat of Fort Christiana and Swedish and Finnish settlement on the shore of Delaware Bay, 1638.
(From an old print.)



Savannah, Georgia, in 1741.
(From an old print.)

the Indians of that region, and died while on his return to St. Ignace. In 1678 La Salle built a sailing vessel on the upper Niagara River, in which he navigated Lakes Erie, Huron, and Michigan in 1679. In 1680 he built a fort on the Illinois River; and in the same year Father Hennepin explored the upper Mississippi to the site of Minneapolis. Early in 1682 La Salle started on his memorable voyage down the Mississippi by way of the Illinois River. He reached the Gulf in April, and claimed for France, under the name of "Louisiana," all of the vast empire drained by the Mississippi and its many tributaries. By that time there was a total of nearly 10,000 French people in the region around the Gulf of St. Lawrence, along the St. Lawrence River, and in the country of the Great Lakes.

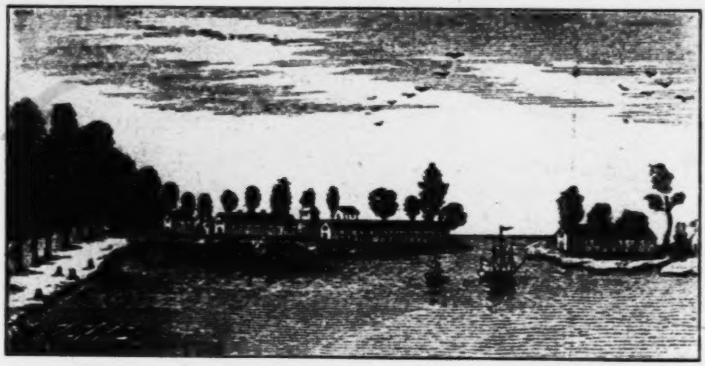
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ONTARIO
LAKE ERIE
SPANISH
FRENCH CAROLINA
FLORIDA
GULF OF MEXICO
EUROPEAN PROVINCES
1655.
BAHAMA ISLANDS
Longitude West from Greenwich

"Neither heat nor cold, neither ice nor snow, neither hunger nor thirst, nor the attacks of savage foes, could deter the French. They penetrated forests into which the savage had never dared to go. They explored rivers down which no Indian had ever paddled. They founded missionary stations, they built churches, they laid out towns, they put up forts. They connected the two great natural highways, the St. Lawrence and the Mississippi, by a chain of military posts."

About the year 1553 some Portuguese, said to have had with them a few head of cattle and other stock, attempted to found a settlement in Newfoundland, but after a brief trial gave it up and withdrew, leaving the region to the French. If it be true that they had live-stock, theirs was the first introduced anywhere along the Atlantic coast of North America; but probably it is not.

The French are said to have introduced Norman cattle into Acadia about the year 1600, and horses as early as 1604, and to have followed them within a year or two with sheep and swine. The Quebec settlement early was supplied with these animals, and as the French advanced up the St. Lawrence River and into the country of the Great Lakes, more or less of their live-stock soon followed; some of which was at Sault de Ste. Marie in northern Michigan nearly 100 years before any had crossed the Alleghany Mountains from the English settlements on the Atlantic coast.

The Kaskaskia Country
(From an old map.)

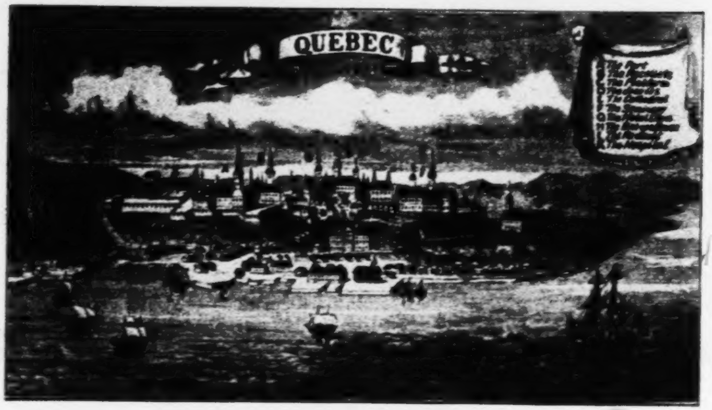


New Orleans in 1719.
(*From an old print.*)

In 1682 a French trading-post with a Jesuit mission was established on the Illinois River, which, in 1700, was removed farther south and to a point nearer the Mississippi, where it became the nucleus of the present town of Kaskaskia, Illinois. In 1685 La Salle planted a colony of 280 French people on the Texas coast near the site of Galveston, but after several years of disaster it was abandoned. In 1699 a colony of 200 French emigrants settled at Biloxi on the Gulf coast of Mississippi, some of which were later removed to the site of Mobile, Alabama. Natchez, Mississippi, was founded in 1716; New Orleans in 1718; Vincennes, Indiana (where there had been a mission since 1702), in 1732; St. Genevieve, Missouri, in 1735; and the city of St. Louis in 1763. In the meantime the city of Detroit, founded in 1701, had become an important place, and a fort had been built on the site of Memphis in 1739.

Thus we have seen that the thrifty French were far in advance of the English and of all other European peoples in settling in the great Mississippi valley region, and that by the opening of the eighteenth century they had a chain of outposts, missions, settlements, and towns, extending from the Gulf of St. Lawrence, by way of the St. Lawrence River, the Great Lakes, the Illinois and Mississippi Rivers, to the Gulf of Mexico. All of their settlements had been provided with horses, cattle, sheep, and swine (excepting sheep, on the Gulf coast) either in their beginning or very soon thereafter.

Occupation and settlement of the present Pacific coast region of the United States was long delayed, notwithstanding that a large part of the country had become known to explorers in the first half of the sixteenth century. Spanish Franciscan missionaries and a few Spanish colonists were the pioneers in California in 1769, but Oregon and Washington remained unsettled until early in the nineteenth century, when English and American fur-traders established themselves there. In 1535 Juan de Grijalvo, in a vessel built and equipped on the Pacific coast of Mexico by Cortez, had sailed northward and discovered Lower California; and in 1540 a Spanish exploring expedition under Cabrillo, a Portuguese navigator, entered San Diego Bay, and also proceeded northward as far as the Umpqua River in Oregon. In 1579 Drake, the English explorer, prowled along what is now the

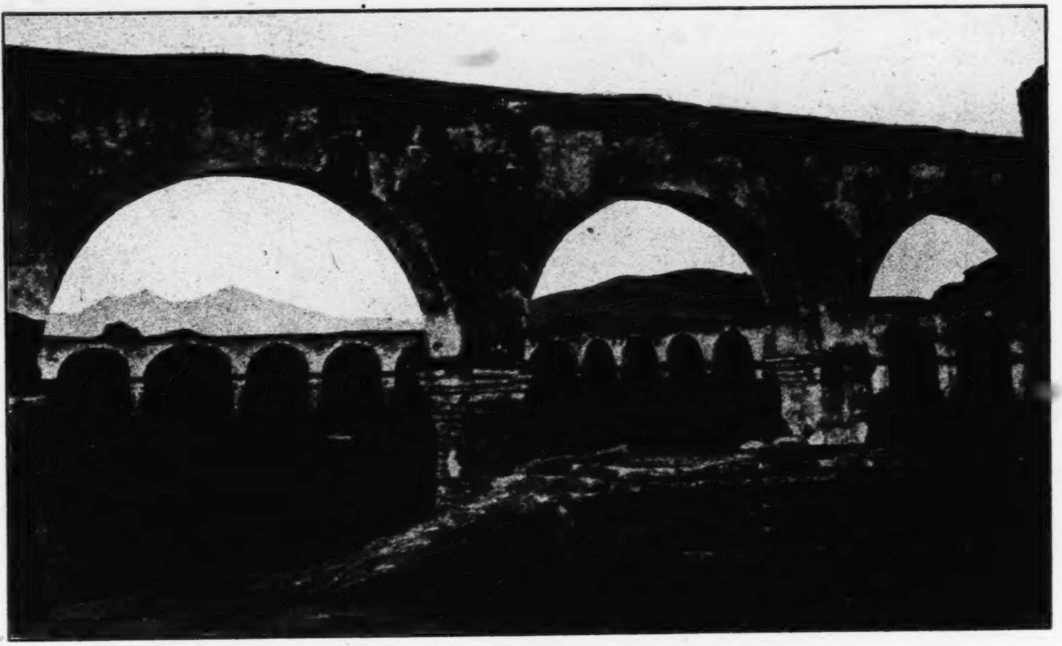


Quebec in 1730.
(*From an old engraving.*)

western coast of the United States to Cape Blanco, Oregon; and claimed for England a large part of it, to which he gave the name "New Albion" (New England). Cabrillo's discovery of California resulted in nothing of any consequence, and appears to have been almost, if not quite, forgotten, for much credit was given the Spaniard, Viscaino, for having re-discovered it in 1602; but more than 150 years passed before a settlement was made in the country.

About the beginning of the eighteenth century Spanish Jesuits planted a chain of fifteen missions in Lower California; and in April, 1769, a party of Franciscan friars founded a mission at San Diego, from which time dates the "mission era" in the former Upper California. By the close of that century the Franciscans had dotted the coast line with missions that extended from San Diego to a little beyond San Francisco, a distance of 600 miles. The friars took possession of the most fertile of the watered valleys, but the missions were located on or near the coast. The jurisdiction of each extended half the distance to the other, each way, and thus they controlled the entire coast line. But inland it prevailed to a distance of from twenty to thirty miles, according to the character of the country, beyond which were the mountains and the tribes of the low-grade and undisturbed Indians.

It was at these missions that the live-stock business first was developed into a great industry, and that flocks and herds first were increased in size until their members were numbered by thousands, within the present borders of the United States. Sheep, cattle, and horses were introduced when, or immediately after, San Diego was founded, and each succeeding mission was supplied with a good stock. The converted Indians were reduced to servitude that practically was a state of slavery; and under a genial climate, with the added advantages of a highly productive soil, the missionaries reared their "cattle," cultivated the vine, the olive, and the fig, and enjoyed all the conveniences and luxuries that slave-labor could produce. Their policy and practices in dealing with the native people were as far unlike those of the French



Ruins of San Juan Capistrano Mission, California.
(*From a photograph.*)

missionaries, who entered the Mississippi valley by way of the River St. Lawrence and the Great Lakes, as the night is unlike the day. Nevertheless, their live-stock multiplied with amazing rapidity on the virgin pastures of the rich valleys, and the exports of wool, of hides, and of tallow, together with those of wine and other produce, filled to overflowing the coffers of the missions; for nothing was paid for labor, the Indian shepherds, herdsmen, and tillers of the soil receiving only food and the coarsest of raiment. At the opening of the nineteenth century each mission possessed 40,000 to 60,000 head of cattle, and about as many sheep, and from 2,000 to 3,000 head of horses. Yet an Indian was not permitted to ride on horseback unless he first had permission to do so from one of the padres; and when he slaughtered cattle or sheep he was given only a small allowance, the friars holding that too much food tended to make the Indians rebellious. For about sixty years after the founding of San Diego these missionaries had absolute control of California—spiritual and temporal. Their twenty-one missions attained the height of their prosperity early in the nineteenth century, and their wealth in live-stock and from the products of the soil was enormous. These halcyon times continued until about 1825, the missionaries living in patriarchal state, with almost royal revenues, and accountable to no one. They looked after their great flocks and herds, and their lands and the produce thereof, and aside from their routine religious functions, their lives were as those of proprietors and managers of vast landed estates. But the decline and downfall of the mission system came swiftly, as one of the early acts of the Republic of Mexico was to abolish the missions entirely and to deport the missionaries. Therefore, the great herds and flocks had disappeared before California became United States territory in consequence of our war with Mexico. But there were some very large stock-growing estates of Spanish-Mexicans in the southern part of the province, and some of the more civilized Indians there also were engaged in the business when the change took place.

California's name was bestowed upon it by the Spaniards, who probably took the word from a Spanish romance of 1510, in which a fabulous island, rich in gold and precious stones, is so called.

In the historical outlines contained in this section, and that also constitute the greater part of the preceding one, we have seen when and how our live-stock animals were introduced into North America after the Columbian discovery. The principal two sources from which the pioneer stock was drawn were, as we have seen, Spain and England; France and Holland, Denmark and Sweden, having altogether contributed only a minority. It is reasonable to suppose that these early emigrant horses, cattle, sheep, and swine represented, in general good qualities, something above the average of the live-stock in the countries from which the various colonies came; for it is probable that in selecting such animals for the long voyages under hard conditions, only the better ones of their several kinds would be taken. But as these initial importations were made before there had been any noticeable improvement in live-stock by breeding intelligently and systematically, these pioneers were, of course, of unimproved types. Nevertheless they multiplied, and through the succeeding years their descendants, with some further assistance from abroad, were made abundantly to replenish our part of the earth; and from these small beginnings the live-stock industry has been extended over the great territorial empire of the United States that stretches from ocean to ocean, and in which it has reached a magnitude that never has been equaled in any other country of the world.

Ike T. Pryor.

From newsboy in the army to a position as one of the leading cattlemen of the United States!

There are mysteries in the human life many of us cannot fathom—undercurrents in the affairs of men which often lead us to believe that a higher Power moves and controls both in individuals and in nations.

A glance of an eye, a sentence caught from a newspaper, a thought flashed into the brain from the realm of the unseen, and the whole direction of a life may in one instant be changed.

This world is the most interesting problem of the universe, and the people of this world are the most interesting creatures we know anything about. Every man is a mystery, and the successful man is the most instructive study that is presented in all the range of human experience.

In this article are presented a few facts about a successful man.

I. T. Pryor is a native of Florida, but the greater part of his life has been spent in Texas. He was born at Tampa, Florida, in 1852, and was early left an orphan, his father, David C. Pryor, dying in 1856, and his mother two years later. The family resided for a time at Hernando, Mississippi, and after the death of the mother the three children, all boys, were distributed among relatives. It fell to the lot of I. T. Pryor to take up his home with an uncle at Spring Hill, Tennessee. At ten years of age, when the Civil War opened, he was upon his uncle's farm. Stories of the army excited his fancy and aroused such a burning desire to mix up in the struggle that the boy of ten years ran away, and soon found himself in the vicinity of the Federal army. On the road he met an army teamster, who gave him a bed of straw in his wagon, and the boy was launched on his career. The story is one of the romances of the war.

He gained entrance to the lines, and his tender age so appealed to the soldiers that he was given a place at the camp fires and soon earned a place in their hearts. Too young to perform any service, he found a congenial occupation in selling newspapers, and for two years he accompanied the Army of the Cumberland as newsboy. He witnessed a number of the most sanguinary battles of the war, and was present at Murfreesboro, Chickamauga, Chattanooga, and Lookout Mountain, where thousands of dead and wounded attested the terrific ravages of war, and made an impression upon his mind that is as vivid in its tragic coloring to-day as it was forty years ago. These were strange scenes in which to educate a boy for life, and herein is one of the mysteries of this simple recital.

The soldiers were the friends of the boy and he was the friend of the soldiers. Upon the bloody battlefields he carried water to the wounded and dying, and at the battle of Chicamauga a pony was killed from under him. This pony was a present of the warm-hearted soldiers.

From Murfreesboro to Chickamauga was a

long journey of many weary months and the way was strewn with tears and sorrow, yet the little newsboy passed through the terrific ordeal, and his second lesson of life was closed.

Dr. R. Worth, of Ohio, was a surgeon of the army, and his interest in the boy was such that he sent him to his home at Ottawa, Ohio. The lad made himself useful upon a farm for six or eight months. Relatives protested against the action of Dr. Worth, and at the close of the war young Pryor was transferred by order of the Governor of the State, to Nashville, Tennessee, where he became a member of the household of Mr. and Mrs. John O. Ewing. Here he had the advantage of two years in school, moving afterwards to Arkansas and thence to Alabama, where he worked upon a farm.

In 1870 Mr. Pryor was eighteen years of age, taller than boys of that age usually are, but full of energy, ambitious, industrious, and anxiously waiting for the next movement upon the checkerboard. An older brother, A. M. Pryor, proved to be the instrument by which the move was to be made. He had established himself in the cattle business in Texas, and in a brief time Mr. Pryor was engaged upon a farm near Austin, Texas, where he handled a six-yoke team of oxen, and received his first lessons in the livestock business as it was known in the great Southwest. He remained upon the farm for a year, and then launched upon the cattle-trail. Here he found the occupation that has been his chief interest of his life.

In 1871 he drove cattle over the trail to Colorado at $60 a month; in 1872 he was upon the trail to Abilene, Kansas, at $75 a month, in 1873 he traded in horses; and in 1874 and '75 he was manager of a cattle ranch in Mason County, Texas, for Charles Lemburg at $100 a month the first year and $150 a month the second year. His rapid advancement was due to energy and close attention to business—two traits that have remained with him as prevailing characteristics.

A beautiful writer has said that the view a man takes of the world is simply the view he takes of himself. This means that there is a mystic power in hope, and he who carries hope in his heart may accomplish anything he desires. This profound truth may not have been so clearly expressed in the mind of I. T. Pryor at twenty-three years of age, but the principle was in operation, the right machinery had been set in motion, and he had fairly begun to climb the heights that lead to fortune.

He appeared upon the stage at a time when the cattle-trail was in its glory, and hundreds of herds were moving each summer from the vast open plains of Texas to the Northern ranges and markets. Fortunes were made or lost in a single season, and the cattle business had assumed a position as one of the great industries of America. The packing-houses, established after the close of the Civil War, had quickly educated the people in the use of the various products of the steer, and immense capital was being attracted to live stock.

Mr. Pryor had been accustomed to a free life, and for him the cattle-range possessed a charm that nothing else has ever quite supplied. He soon became a good judge of cattle and horses, and for more than thirty years his associations have been principally with cattlemen. The training he received in his boyhood prepared him to meet the business world, and in the fall of 1875 he bought the herd of Mr. Lemburg giving as part payment a note for $3,000, the first note he ever signed. In 1876 he spent the summer traveling in the East and visiting the Centennial Exposition at Philadelphia. In 1877 he supplied, under contract, fifty head of cattle a month to the Austin market, and in the following year he cornered the market of that city, supplying 600 cattle a month for six months. In 1879 he returned to the cattle-trail, and entered into partnership with his brother and a banker of Colorado, contracting to deliver beef cattle to the St. Louis Canning Company.

In the spring of 1880 Mr. Pryor was married to Miss Helen Rapp, of Austin, whose death eight years later left a husband and three children to mourn the departure of a faithful wife and a loving mother. In 1903 he was married to Mrs. Myra Stafford Early, daughter of R. E. Stafford, of Colorado County, Texas. Mr. and Mrs. Pryor located in San Antonio, which has since been their home. Mrs. Pryor is a woman of fine education and rare literary and intellectual attainments. She is a constant support and inspiration to her husband.

The firm of which Mr. Pryor was a member in 1880, owned 6,000 cattle. He disposed of his interests in Mason County, and opened a ranch in Southern Colorado, developing into one of the large operators from Texas northward. In 1881 he drove 10,000 cattle to market; in 1882, 15,000 cattle; in 1883, 25,000, placing 4,500 cattle on the Colorado ranch; and in 1884 he bought 45,000 cattle in Texas, and sold 42,000 in various States of the North and Northwest. The firm of Pryor Bros. became widely known as one of the large handlers and dealers in cattle, and their credit placed them near the head of the list. Then came the depression of 1884. In three years the firm sold $200,000 worth of cattle from the Colorado ranch, but the death loss occasioned by winter storms was as large as the entire sales. These great ups and downs in business have always been characteristic of the cattle trade, and it is a question in the minds of many of the leaders whether wide fluctuations will, under existing conditions, ever be avoided. The principal remedy advocated by Mr. Pryor is in the establishment of packing-houses at all the principal centers.

The building of railroads into the Southwest and the settling up of the country caused the abandonment of the cattle-trail, and in 1886 Pryor Bros. retired from the handling of trail-herds, and purchased the property owned by the Texas Land and Cattle Company. Mr. Pryor was made president of the Texas and Colorado Land and Cattle Company, and for three years operated extensively in Indian Territory, handling 150,000 cattle. He became actively identified with a number of private and public organizations, among which the following may be named: The Texas Cattle Raisers' Association; vice-president for the State of Texas of the Cattle and Horse Growers' Association of the United States; honorary vice-president of the Dallas State Fair for the first two years of its existence; member of the Executive Committee of the North Texas Live Stock Association; vice-president and member of the board of directors of the Evans, Snider, Buell Commission Company, Kansas City; director of the Texas Beef and Packing Company; director of the American National Bank, Austin; and general manager and part owner of a $400,000 ranch in the Panhandle. He is now (1904) vice-president of the Texas Cattle Raisers' Association, having served for several years upon the Executive Committee. He was the organizer of the City National Bank of San Antonio, and was its first president.

Mr. Pryor is a prominent member of the National Live Stock Association, and is always an earnest worker in the various organizations. He is a firm believer in the theory that a man is under obligations to society, the church, and the State, and it is his duty to discharge faithfully public responsibilities which he is invited to assume. These services require time and thought, but if the competent men shirk the duty much useful work will not be done. This principle is clearly recognized by many of the most successful live-stock men, and accounts in no small degree for the growth of the industry and the esteem in which it is held by the educated public and the law-making bodies of the country.

In order that the reader may understand more fully the above remark, an illustration is here given as to one feature of the programme at the annual meeting of the Texas Cattle Raisers' Association, which assembled at Fort Worth in March, 1904. Mr. Pryor delivered an address upon the subject most prominent in the minds of cattlemen, "The Depression in Cattle Values and the Remedy for the Same." The address was received with great favor by thousands of cattlemen, and by request was widely distributed throughout the country. Mr. Pryor is never an extremest, and his opinions on business questions receive thoughtful consideration, as he is known to be in constant touch with all shades of opinions, and he is capable of arriving at a fair conclusion. The address of Mr. Pryor was the clearest and fairest statement that had been made up to that time concerning a situation of the gravest importance to all live-stock men.

After reviewing the subject succinctly, and presenting an interesting array of statistics, Mr. Pryor concluded as follows:

"Remedy: First—Strive to restore cattle paper to its former standard as high-class collateral, fostering this credit by a conservative use of the same.

"Second—Adjust and settle range conditions as speedily as possible, marketing fewer, but better cattle, because the day has come when quality counts instead of quantity.

"Third—Keep in close touch with your

Cattle Raisers' Association, and help it foster and protect the general interest of the industry you are so deeply interested in. Instruct your representatives to secure adequate appropriations for the Agricultural and Mechanical College, enabling that institution to carry on experiments along the lines of feeding and maturing cattle for market, relieving you of this expense, and enabling you not only to avoid mistakes, but to improve your methods by the experience of others.

"Fourth—And last, but not least; give your financial or moral support to any enterprise that will result in building competitive packing-houses at all the market centers, and do not hold the packers responsible for all the unfortunate conditions existing in your business to-day and expect them to relieve the situation. You cannot depend on them for relief.

"Furthermore, encourage the tendency that seems to be growing, to build small packing-houses in cities in close proximity to the cattle ranges, and do not exact of them more money than you would receive in the market centers. It seems to be a cattle-shippers' weakness to be anxious to ship to large markets, even if he receives less money for his product. The concentration of your product at a few market centers is calculated to give the packers advantage of the situation. Each place established for the marketing of beef is a direct benefit to the producer. Instead of five or six great markets we should have fifteen or twenty.

"With ample money to enable you to protect and care for your stock, which a good credit will give you, and when placed upon a permanent and lasting range, instead of a leased and temporary one; when numerous and competitive packing plants are built at all your market centers, marketing nothing but good, ripe, well-fattened beef; then and not until then will you have permanent and lasting prosperity in the cattle business. Under exiting conditions the price of cattle will continue to fluctuate with the low average prevailing.

"Apply the remedy, and watch the satisfactory results."

As a ranchman, Mr. Pryor is the owner of a 100,000-acre ranch in Zavalla County, Texas, ten miles from the town of Uvalde. Zavalla County is located in the southwestern part of the State, in a region that for many years has been one of the principal live-stock districts of the Southwest. The surface is traversed by mountain ridges, between which are broad prairies covered with grasses and dotted with groves of elm, huckleberry, and mesquite. Pecan groves occupy the bottom lands, and in 1903 the pecan crop on Mr. Pryor's ranch brought $7,000. The Nueces River, with water enough to float a great battleship, flows through the center of the ranch. The rainfall averages nineteen to thirty inches, and the crops include cotton, corn, wheat, oats, sweet potatoes, Bermuda onions, and the fruits pertaining to the borderland of the tropical region. The introduction of artesian water is effecting a change from live-stock business to farming, and experienced farmers are being attracted to Zavalla County as a prosperous farming district. Mr. Pryor maintains a herd of 6,000 steers on the ranch, but he recognizes that the time is at hand when the entire area will be devoted to farming and small stock-raising. The land is becoming too valuable to be retained as a cattle ranch.

It is the opinion of Mr. Pryor, as the result of thirty-three years' observation in Texas, that seasons are gradually moving westward, and the greater part of West Texas is destined as farming land. Years ago he rode on horseback from the Red River to the coast, and from Dallas as far west as the State line. There were then no railroads in West Texas or the Panhandle, and no man dared to prophesy it would ever be a farming country. The changes have been so marvelous that a man may now safely prophesy almost anything in the line of improvement for West Texas and he finds a ready listener. Could the patriot and scholar, Lorenzo de Zavalla, return to the region that was once his home, he would hardly accept the evidence of his senses, so great have been the changes wrought by the hand of industry and progress.

Mr. Pryor is a man who through life has had one grand central purpose. He left nothing to chance. His energy is of the sort that never rests until assured that every part of a complicated business is moving smoothly, and his long contact with men, extending from the time when he was a mere lad, gave him an intuitive knowledge of human nature possessed by few men. The knowledge is gained only by one, who is an apt pupil in the great school of the world, and it is doubtful whether it can be taught in any other way. It leads to quick discrimination, keen comprehension of the motives of men, and, in the case of Mr. Pryor, almost unerring judgment in deciding important business points. This ability is of tremendous value to the politician, and marks the political leader. It is absolutely necessary in the great business manager of modern times, whose decisions are often of such importance that they affect thousands of men and thousands of families.

It is absolutely true that talent is developed by use. This is fully illustrated by the advancement of Mr. Pryor and the ease and celerity with which he dispatches important affairs. His decisions are quick and clear, but he calls for full presentation of facts, and he seldom revises a decision after it is once made. In many matters pertaining to the Texas Cattle Raisers' Association he has shown a surprising knowledge, but he has been so long and so intimately connected with the cattle business of the Southwest that the whole history of its development is familiar to his mind, and the peculiarities and wants of the various sections are to him as an open book. The great success of the Texas Cattle Raisers' Association and its world-wide reputation are due to the business ability of the men who have directed its affairs.

Certainly it is a matter of congratulation to meet with men like I. T. Pryor in the cattle business. A man who is sure of himself always inspires confidence in his associates, and this confidence is passed along, even to strangers. Who can estimate the value of individual force in the enlightenment and upbuilding of the race? It is an honor for any man to be found in the company of those self-poised, self-sustaining men whose shoulders are broad enough not only to carry their own affairs, but the affairs of great interests of the country. It is by absorbing some of the same spirit—attracting a spark of the same electric energy—that others are transported from fear or hesitation into the sunlight of glorious achievement.

So these men are harbingers of a better day, prophets of a new dispensation, toward which the world is rapidly moving.

The man who learns to stand alone is the intellectual giant as well as the business giant. All leadership is based upon this principle, and it is universal. The world, as has been said, may be divided with two classes—the lifters and the leaners. The lifters are the ones who carry off the prizes. Mr. Pryor has always been a lifter, and the man who early in life joins this class will always graduate at the university.

Origin and Descent of Our Live-Stock Animals.

The Western Continent the Home of the Remote Progenitors of Our Cattle, Horses, Swine, Sheep, and Goats. —Wonderful Facts of Geology.—Primitive Mammals. —Gaps in the Records.—Vast Lapses of Time.—Sudden Appearance of Abounding Mammalian Life in the Eocene Peroid.—Typical Forms.—Evolution of the Horse.—Advent of the Swine Family.—Tertiary Wild Boar.—The Singular Oreodon.—Primitive Ruminating Animals.—Forerunners of the Hollow-Horned Varieties.—Early Fossils of the Ox, the Sheep, and the Goat.—Extinction of Species.—Mammalian Life in Tertiary-Quaternary Times.—Natural Evolution in the Future.

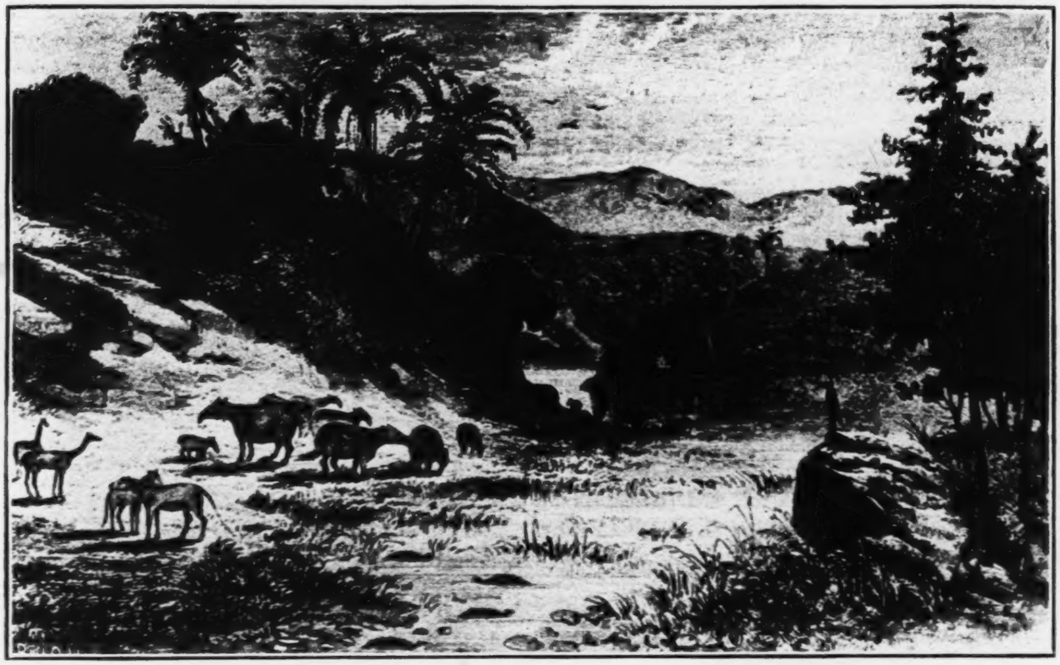
The introduction of our live-stock animals into America was no more than their homecoming to the land of their immensely remote progenitors, for it was upon the western continent—the miscalled "New World," in which lies the oldest of all land—that the forms of mammalian life from which their genera ultimately were evolved, appeared upon the earth in geological ages so far distant in the past that the human mind would prove utterly incapable of appreciating the period that has intervened, even had we any means of approximating its duration.

The facts of geology and of paleontology are far more strange than any fictional product of man's intellect, and no romance ever contained elements so well calculated to excite our wonder and to stir our imagination as are the accumulations of sober knowledge that have been derived from the intelligent study of the geological history of the earth, and of the evolution of the varied forms of life that dwell upon it. It is assumed by all, or by nearly all, geologists that every species of animal, broadly speaking, had a definite place in, or a belonging to, the geological scale; in other words, that its existence was coincident with and specially adapted to a certain period in the development of the earth, and with and to no other. Therefore, it is held that the geological changes that successively came to pass in the surface of the earth very greatly, if not wholly, determined the evolution of life-forms that dwelt upon the land. Had the earth remained covered by shallow seas and lagoons and low wide-spreading marshes, reptilian life probably would have been the highest form possible. But as dry land increased in extent, and vegetation became nutritious and abundant, when, in fact, the land surface was developing into a vast and rich pasture, watered by many streams, bathed in bright sunshine, and fanned by warm and pleasant breezes, mammalian life became possible. As the conditions became still more favorably developed mammalian forms diverged from the earlier types, and as the ages lapsed multitudes of newer forms were evolved.

The history of the evolution of our live-stock animals carries us back far into geological antiquity, but its traces become effaced long before we reach the first divergence toward the mammalian type. In the Mesozoic, or Secondary, Era in the geological history of the earth reptilian forms attained enormous proportions, and predominated and ruled to an extent so great that the Mesozoic is fitly termed the Era of Reptiles. Nevertheless, the earliest suggestions of the mammalian class have come from fossil forms found in North Carolina in deposits of the Triassic, or first, period of that Era. These creatures were embryotic mammals belonging to very low types of marsupials. Another, but later, Triassic mammal was an important type, and about the size of a gray fox. In the deposits of the Jurassic, or second, period of the Mesozoic Era, many mammalian remains found in the western part of the United States, indicate animals of small size, pertaining wholly or in principal part to the order of marsupials, or pouched animals. Both the insect-eaters and the herb-eaters had their representatives among these, and it is not improbable that the more strictly carnivorous type of marsupial also then existed.

In this period as well, there appeared a new form of animal that is of especial interest in connection with our subject. This was the stereognathus, a hoofed herbivore, and in which it is possible that we have the remote rudimentary divergence toward our modern hoofed animals. The stereognathus shows that evolution had, as early as this period, made a considerable degree of change among the marsupials. In the deposits of the Cretaceous, or third and last, period of the Mesozoic Era, no traces of any mammalian life thus far have been discovered in strata indisputably belonging to that period. The fossil remains of a little creature called meniscoessus, the closest relationship of which appears to be with the stereognathus, was found in Dakota in 1884 in what was alleged to be Cretaceous deposits, but this is still in dispute among geologists. Aside from this questioned exception, all of the little Triassic and Jurassic forerunners of more noble types are absent from the Cretaceous. There must have been a great number of individuals of each of these species, but however numerous they may have been, they are lost to knowledge in the next succeeding formations. These circumstances, however, are not attributed to extinction of the species, but to the more or less marine origin of the deposits of that period—that is to say, that much, if not all, of these deposits was formed under an ancient sea and afterward was upheaved.

The closing ages of the Mesozoic Era were marked by the decline of the great forms of reptile life, and which was continued until that class was reduced comparatively to insignificant proportions early in the succeeding Era—the Tertiary. With the beginning of this, the third grand division of geological history, we encounter the most marked of all of the organic changes that characterize the different geological epochs. While the reptiles and other entire series of ani-



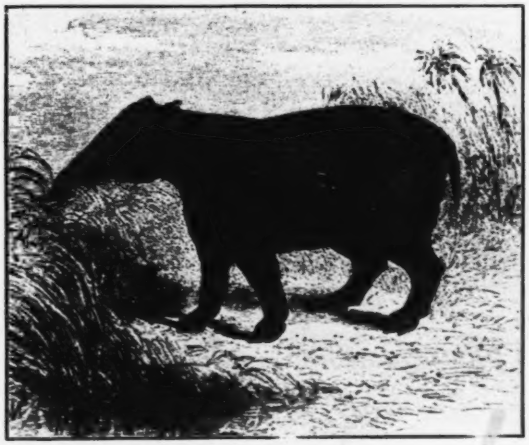
Ideal Landscape of the Eocene Period.
(From Figuier's "The World Before the Deluge.")

mals from the lowest almost to their highest types suddenly become extinct, or so nearly verge on extinction as to constitute a very insignificant element, groups of new types of equal or greater importance, and which had hitherto no, or at least but very few, predecessors, just as suddenly make their appearance. It would seem as though a fresh start had been taken in stocking the earth's surface, so great is the difference in many respects between the animals of the Cretaceous period and those of the Eocene, the first period of the Tertiary Era. But this difference, as it now presents itself, is not to be taken as indicating that it in fact even existed as such. The gaps that now separate the animals of the one period from those of the other were undoubtedly filled by types of intermediate grades, with the existence of which we shall be made acquainted only when the hiatus, which here breaks into the continuity of the geological system, shall have been more completely filled in by further research. It is illogical and directly opposed to the workings of evolutionary forces to conceive of a wide-spread group of animals suddenly appearing and springing into prominence; and it is no less illogical to conceive of an equally sudden extermination. Hence, where vast differences in the animals of any two geological periods present themselves, we have reasonable grounds for concluding that a long lapse of time has intervened between the apparent close of the one period and the apparent opening of the other; in other words, that there is here a geological break. Only where the continuity of the geological system is complete, or where the imperfections of the records are reduced to insignificance, can we hope to meet with an organic chain, the continuity of which is likewise complete. No such complete record nor anything approaching it has as yet been discovered, nor does it seem at all likely that such a record ever will be discovered. But the gaps that occur in one locality or country may not exist in another, and those present in the second may be absent in still another, and so on; hence, by a series of comparisons made between several localities there may in a measure be realized a comparatively perfect record, or at any rate one in which the breaks have been materially narrowed, and with it also a comparatively perfect organic chain.

The vast lapses of time necessary in the course of natural evolution to change an animal form into one that is greatly different and more highly developed are not to be measured by such brief periods as centuries or millenniums, but by millions of years. The seven or eight thousand years that cover the known history of the human race are insufficient to produce any visible changes in the forms of wild animals, and a much greater length of time is required to work even a slight anatomical change. The intelligence and sagacity of man, and perhaps also his selfishness, applied to the breeding of his domestic animals, have wrought changes in their forms and other characteristics as great possibly as would have come to pass by natural evolution in a considerable part of an entire geological period; and some of these changes undoubtedly would have been impossible to the animals had they been living in a natural state.

From the researches of geologists and paleontologists there has arisen a somewhat general conclusion that the remote, primitive type of placental mammal was an insectivore, similar, if not the same, to the small and more or less marsupial-like creatures that already have been mentioned as having made their appearance in the Triassic and Jurassic periods of the Mesozoic Era, and that from this original type were evolved all of the multitude of mammals whose remains lie buried in the enormous deposits of the Tertiary Era; and also most if not all of the varied forms of mammalian life, radically changed by gradual modification through the ages, that now abide upon the earth. At what precise period of the earth's history the insectivora first appeared it is impossible to say, but there can be little or no doubt, considering the modifications of their structure that are presented by their earliest known fossil remains, that their first appearance was at an epoch very much earlier than that of the deposits in which their remains have been found. Back of this lies the certainty that these inconceivably ancient creatures were in turn evolved from some form of preceding reptilian life.

The transition from cold-blooded oviparous (egg-bearing) saurians to warm-blooded viviparous (life-bearing) mammals through the intermediate forms of marsupials was a work of evolution that must have gone on and on through countless ages. Holmes, in his "Elsie Venner," says that "viviparous creatures are a kind of specie-paying lot, but oviparous ones only give their notes, as it were, for a future brood." The marsupial, a semi-mammalian, stands between these two. It brings forth its young alive, but very imperfectly developed, and completes the process of development in a pouch of abdominal integument, or marsupium, after the infant's expulsion from the maternal body. The opossum of our own country and the kangaroo of Australia are surviving representatives of the immensely ancient marsupial links that connected the saurians with the mammals.



The Palæotherium.
(*From Figuier's "The World Before the Deluge."*)

In the deposits of the Eocene period, the first division of the Tertiary Era, evidences of a great change are abundant. The over-grown reptiles had made their adieus, leaving only a few of their class, and these were emaciated and impoverished. In the revolution that marked the Eocene, the world became astir with mammalian life, which would seem to have come upon the broad stage of action with a bound. Indeed, the most striking feature that is presented in the known history of mammals is their apparently very sudden introduction, both as to numbers and diversity of form, almost with the beginning of the Eocene period. At present this can be referred only to the probability of a great gap having intervened. If ever we are to know anything about it and about what had happened in the ages that it spanned, the knowledge must come from further researches, as theories and plausibilities have failed to fit the circumstances of the case; for it is to be remembered that in the deposits of the period next preceding, if we except the doubtfully placed meniscoessus, not even a trace of the existence of true mammals has been detected. The semi-mammalian forms that have been found in the earlier Jurassic and Triassic deposits belong, as far as paleontologists have been able to determine, to the order of the marsupialia; but in those of the Eocene period of the Tertiary Era have been found the remains of individuals belonging to at least one-half of all the recognized orders upon the earth at the present time, beside those of a host that has become extinct.

Yet this assemblage was stamped with inferior characteristics, although its types were what is called "comprehensive," or greatly generalized—that is to say, some characters of two, three, or more of our modern orders were blended in one individual—a principle that is exemplified in the early representatives of every group of animals. Therefore, some of these Eocene mammals differed widely and often grotesquely from any forms now living, but others presented in all fundamental respects unmistakable resemblances to animals that still are upon the earth. However, there is a striking disparity in their brain cavities as compared with those of their nearest modern relatives.

Eocene mammals generally were pentadactyl, or five-toed. To have five toes on each foot might be thought a mark of superiority, since man has five; but that is the typical or fundamental number, and is possessed by many reptiles and also by most of the lower mammals. Advance has been marked by modifications, and these, as a fact, have involved in most cases a reduction in the number of digits. The extremities of man may, therefore, be regarded as more primitive than those of the dog with four digits, of the ox with two that are developed, and of the horse with but one. Furthermore, most of the Eocene mammals were plantigrade—that is, they walked on the whole length of the foot with the heel on the ground, as men walk; although nearly all of the other modern mammals walk on the toes with the heel elevated—the "hock" being the heel. Since man is plantigrade, his way of walking also might be taken to indicate superiority; but toe-walking is less primitive.

The most important types of early Eocene mammals were the ungulata, or hoofed animals, the remains of which, including both the odd-toed and the even-toed sub-orders, occur in astonishing abundance, and argue strongly in favor of a very remote ancestry; one, as we have seen, that possibly may run back as far as the middle of the Mesozoic Era.

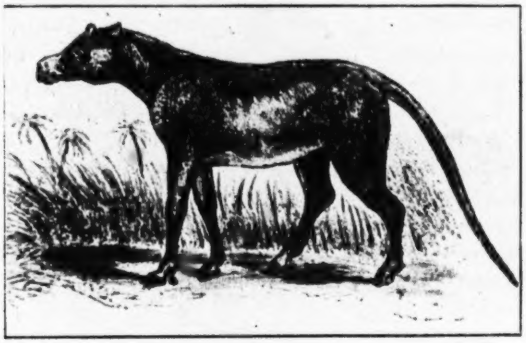
A conspicuous figure among the animals of early Eocene times was the palæotherium (ancient beast). This typical genus was a herbivorous, thick-skinned creature, with a comparatively short tail, and that possessed the first development of the prehensile lip, which is characteristic of the horse, the pig, and several other modern animals. The palæotherium was hoofed and had three toes on each foot. In general appearance some of these creatures bore a near resemblance to the modern tapir, though the neck was somewhat longer. In that part of the United States now occupied by the Wasatch and the Rocky Mountains there were, in the remote ages before these mountain chains were uplifted, many great fresh-water lakes, and in the inviting country around these lakes the palæotherium lived and flourished in large herds and under very favorable conditions. Evidently having originated in North America, some of these animals are supposed to have migrated to Asia and onward into Europe, as their fossil remains have been found in India and in France. But, so far as is known now North America, Asia, and Europe are the only parts of the world in which they existed. The palæotherium type varied much in size, the varieties ranging in height from that of a fox to above that of a cow.

Another early Eocene hoofed mammal was the coryphodon (so-called from the character of its teeth), one of the good examples of a comprehensive type of ancient animal. A vegetable feeder, it ranged in size from the dimensions of a tapir to those of an ox, and, judging from the skeleton, it most nearly resembled in outward appearance, among our modern animals, the bear. Its legs were rather short, each of its feet had five toes, and its canine teeth were prominent, as in hogs and in carnivorous animals. The nose was not adapted for work, as in the tapir, hog, and elephant, and the head, anterior to the eyes, was long, as in the horse, and the whole range of incisors was horse-like. A contemporary, and probably a near relative, of this creature, was the hyrachyus, which was more tapir-like, and had four toes on its front feet and three on its hind feet.

Next we are introduced to the anoplotherium (unarmed beast), a considerably advanced herbivorous early Eocene animal, that is believed to have been soft-skinned, but hairless. The early anoplotherium was no larger than a common fox, but in later times it had increased in size to that of a small donkey. Its legs were much longer and more slender than those of the palæotherium, its two-toed feet were hoofed, it carried a tail that reached to the ground, and had a prehensile lip. Aside from its great length of tail and small ears, it was very much like the donkey in form. Evidently it was an active, alert, intelligent, and peaceful animal. Having, as its name implies, neither horns, tusks, nor other weapons of offense or defense, it probably depended on speed in running to avoid encounter with its enemies. Fossil remains of the anoplotherium abound in the western part of the United States.

Still another of the more important mammals of the first half of the Eocene period was the xiphodon (sword-shaped tooth), the fossil bones of which have been found in plenty in the western part of our country, in Europe, and in Asia, and so well preserved that naturalists have been enabled to restore the creature's form with great fidelity. It was wholly herbivorous and more highly developed than the anoplotherium, had long, slender legs, a correspondingly long neck, a symmetrical body, a well-formed head, a short tail, and hoofed feet having two toes. It is supposed that the xiphodon was covered with hair, and, like the anoplotherium, it was destitute of horns, tusks, or other weapons, and therefore was not a fighter, but a runner; its long legs having been well adapted to rapid locomotion. Save for its hornless head and relatively longer neck, the restored form of the xiphodon strikingly resembles that of our elk.

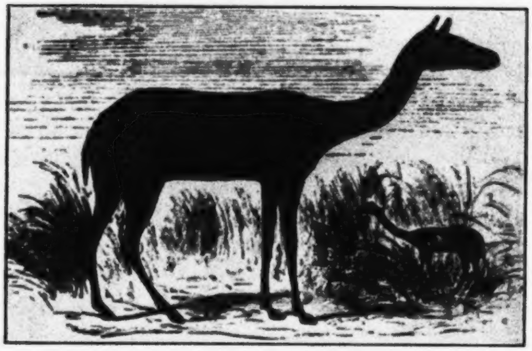
There is scarcely room for any doubt that in these four typical Eocene mammals—the palæotherium, the coryphodon, the anoplotherium, and the xiphodon—we have the primordial group from which the ancestors of all our live-stock animals descended along varying lines of evolution and character-development; and it is highly probable that the palæotherium was of the parental type of its three associates in the group—a relation it appears also to have borne to many others, if not all, of the mammals that entered upon various paths of evolution in early Eocene times. Of the six species that commonly are understood to be embraced by our term "live stock"—the horse, the ass (to include the mule), the pig, the ox, the sheep, and the goat—the first three would seem to be more directly connected with the palæotherium and coryphodon types. One clue to this connection lies in the fact that horses, asses, and the pig-like tapirs were evolved from a remote ancestry having an odd number of toes to each foot, which, as we have seen, was also characteristic of the palæotherium and of the coryphodon. The known lineage of the horned trio among our domestic animals apparently is not so ancient, but it is believed that in the anoplotherium and the xiphodon—giving the greater share of credit to the latter—we have the remote progenitors of the ancestors of all modern horned animals, and of those of the camel family as well. The probability that this was the case receives some support from indications that these two ancient creatures are entitled to be regarded as the primitive ruminants, although their position with relation to modern ruminants is, in the present state of knowledge, an undeterminable one. Furthermore, our domesticated horned animals, as well as the entire deer family, are descended from an ancestry that had an even number of toes to each foot; and this, as already mentioned, was the case with both the anoplotherium and the xiphodon.



The Anoplotherium.
(*From Mitchel's "Evolution of Life."*)

The history of the evolution of the horse, which includes that of its close relative, the ass, is far better known than that of any of our other domesticated animals; and it may be said that it lies before us like an open book, upon the geological leaves of which we may read the whole story with clearness and certainty. Indeed, so complete has the record been made by comparisons of fossil remains found in one locality with those discovered in other localities, that some paleontologists do not hesitate in asserting that the evolution of the horse now may be traced through a number of intermediate forms to the early palæotherium type. From the modern horse the trail leads downward in the geological scale through a gradual series of modifications in the structure of the limbs and teeth which, at the further end of the line, characterize an animal so far removed in general structure from the existing form, that were not the intermediate forms known or were it to be considered by itself, it would be recognized not only as the type of a distinct family, but as a distinct sub-order. From the solid-hoofed type represented in the modern horse we reach, by sensible gradations, an animal having several toes to each foot.

Early in Eocene times there appeared a little creature to which has been given the name eohippus (dawn-horse). Probably it was a good runner, and certainly it was not imposing in size, for it was no larger than a fox; but it had horse-like aspects. The eohippus—so called because its fossil remains are found in the lower Eocene deposits and also because it appears in the dawn of direct horse-history—had four well-developed toes and rudiments of a fifth on its fore-feet and three well-developed toes on its hind-feet. About the middle of the Eocene period another small horse-like animal, the orohippus (mountain-horse), made its advent. Of slightly higher grade of development than the eohippus, it still had four perfect toes in front and three behind, but the rudimentary fifth toe of the fore feet had disappeared. In all other respects the two animals were much alike, differing but little in size and appearance, and in spite of the number of their toes they showed their affinities with the horse in several particulars of structure of the leg and also in their teeth. These animals flourished in considerable number in the region drained by the headwaters of the Missouri River and in other western parts of the United States and also in Europe. In late Eocene times their descendants had made marked advance in their dentition, and therefore have received the name epihippus, which may be taken to mean a higher horse; but there was hardly enough difference between these and their predecessors to warrant giving them a distinctive name and place. Early in the Miocene, or second, period of the Tertiary Era, so great an advance had been made by these horse-like hoofed animals that paleontologists have given them a new name—mesohippus (middle-horse). The mesohippus was as large as a sheep, had three toes and a splint or rudimentary toe-bone on the fore feet, three toes on the hind feet, and a still higher development of dentition. In later Miocene deposits are found the remains of the miohippus (miocene-horse), which differed from the mesohippus in being somewhat larger and in having the splint-bone of the fore feet reduced to the merest rudiment, thus showing that the evolution of these animals was steadily tending toward a form having but one toe. The advances revealed in the mesohippus and the miohippus appear to have been confined to the western part of our country, as the fossil early horse-like creatures of other parts of the world do not show such progress. Passing on to the Pliocene, or last, period of the Tertiary, we meet with the protohippus (first-horse), and sometimes called hipparion (small-horse, or pony). While these names would imply that we have here the true horse, this was not exactly the case. The protohippus was almost the size of a full-grown ass and its feet had become much like those of the modern horse, which animal it rather closely resembled in general appearance, in habits, and in alertness and activity. About the middle of the Pliocene period there appeared the pliohippus (pliocene-horse), which was very near to the true horse as we know it. The pliohippus was but little smaller than the modern wild horse and was a one-toed animal; the extra toes of its predecessors existing in its feet only as atrophied splint-bones. All it lacked of being a true horse was a little more development of its body, of its dentition, and of the single-toed character of its feet. This was readily accomplished, for at some time in the ages in which the Tertiary Era blended into that of the Quaternary, *Equus caballus*, the true horse, became a familiar figure in the landscapes of America. In Quaternary deposits in South Carolina have been found fossil remains of horses that were almost identical in size and figure with the common horses brought from England to Virginia in 1609.



The Xiphodon.
(*From Mitchel's "Evolution of Life."*)

Fossil remains of this entire and very remarkable series of hoofed animals are found in the United States in such numbers as to make it plain that the living creatures, especially those of the later periods, abounded in the temperate zone of North America, in which their evolution into the true horse had been slowly worked out. Several and perhaps all of the species made their way into Asia and on into Europe, but the situation in which their fossil remains are found on that side of the world are not in corresponding, but in later, geological deposits, thus indicating their later appearance there. Eventually horses disappeared from America, but in the Old World they maintained themselves and became the wild stock from which pre-historic man obtained captives, which he reduced to subservience to his will.

The gradation of forms that constitute the ancestral line of the horse, beginning with the existing animal and running back to its earliest certainly known progenitor, and omitting the more than probable earlier connection with the palæotherium, has been summarized as follows:

1. Equus, close of Pliocene period. Common horse, feet reduced to central series of bones (middle finger and toe), a pair of "splints" to represent second and fourth digits.

2. Pliohippus, middle Pliocene. Smaller, central digital series more slender; splints more elongated; crown of upper molars shorter, and crescentic areas simpler.

3. Protohippus, early Pliocene. Size of a rather small ass, central digital series still more slender; splints terminated by dangling hooflets, ulna long as arm, but slender; fibula rudimentary; crowns of molars much shorter.

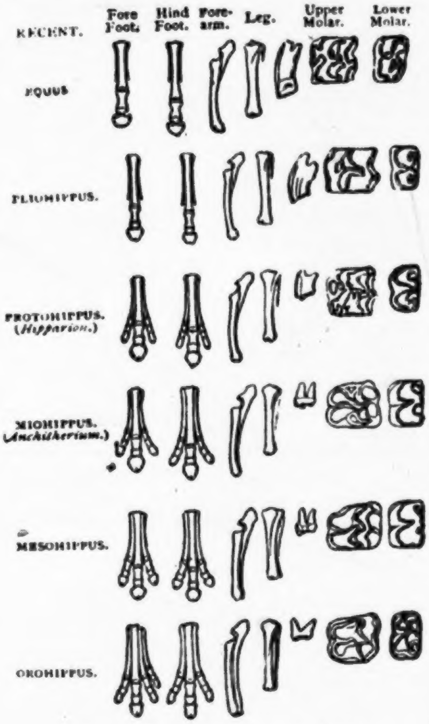
4. Miohippus, of late Miocene. Size of a large sheep; three functional toes in front and three behind; small splint of fifth digit, in front; ulna distinct, long as radius, but very slender at lower end; fibula co-ossified with tibia at lower end; molar crowns decidedly short; enamel folds much simpler than in the horse.

5. Mesohippus, of oldest Miocene. Size of a common sheep; three functional toes before and three behind, but more nearly equal than in Miohippus; large splint of fifth digit, before; radius and ulna distinct, and also tibia and fibula.

6. Orohippus, of middle Eocene. Size of a fox; four functional toes before and three behind; ulna complete and distinct from radius; tibia and fibula also distinct; molar crowns exceedingly short; enamel pattern simple.

7. Eohippus, of oldest Eocene. Size of a fox; four functional toes before and three behind; rudiments of outer or fifth toe behind, and of first digit before; hoofs thick, broad, blunt, and claw-like; molars less specialized than in orohippus, without cement.

In no case do the digits of any normal mammal—an animal that suckles its young—exceed five in number; that being, as heretofore mentioned, the typical or fundamental number. There are instances of human beings having a more or less rudimentary sixth finger and sixth toe, but such a variation from the normal type is regarded as being spontaneous, and is recognized only as a "sport" of nature; analogous variations from normal types also occurring occasionally among plants. The digits, it may be remarked here, are numbered from within, outward. Thus, the thumb on our hand is termed the first digit; the little finger the fifth digit. Among the ancestors of the horse, the first digit was the first to disappear; and after it the fifth digit. In the eohippus, the first digit had disappeared from the hind feet, and the fifth digit had become rudimentary; but on its front feet four digits still were in use, but of the thumb-digit there were only the rudiments left. As we have seen in the foregoing, the dig-



Evolution of the Horse's Foot.
(From Mitchel's "Evolution of Life.")

its continued to disappear until they were reduced in number to the third or central one, as in the horse of the present day; this third digit having remained the principal one in both fore and hind feet of these animals, from the first of the series down to the horse as we know it. It is worthy of note that the digits and their phalanges of the hind feet had a greater tendency to decrease in number than had those of the fore feet. As the fore foot is nearer to the head, its uses are more various, and therefore its digits were less liable to become affected by disuse. In man, we find that the toes are smaller than the fingers, and that in many cases the little toe has lost its third phalanx, although the little finger still retains that bone.

The affinities, gradations, and successions thus indicated are facts of observation; they depend on no theory of organic history. They simply show that each type of the past possessed characters which related it to future organisms.

The divergence from the horse type that ultimated in the ass and in the zebra seems early to have followed the appearance of the true horse about the close of the Pliocene period. By nearly all naturalists the ass and the zebra are placed in the one genus, *Equus*, the characteristics defining them not being considered of generic value.

The horse and the pig families are vastly more ancient than those of our domesticated horned animals and also than those of all horned animals, but the evolutionary history of the pig as yet has not been so thoroughly worked out as that of the horse. The history of the tapir, a kind of creature remotely older than that of the pig, but evidently a near relative of the latter, is but little less complete than is the life-story of the horse. The tapir's apparent next of kin, the peccary, would at first sight appear to be the connecting link between tapir and pig, or as having had with the pig a probable common descent from the older animal; but the peccary species is the younger of the three. Certain deficiencies of detail in the evolutionary history of this group of mammals are chiefly due to the intimate relation which the very early hoofed ancestors of the tapir bore to hoofed animals of other lines; and as yet research has not brought forth a satisfactory remedy.

The tapir, of which there are three species in Central and South America, and one in the East Indies, has projecting buttocks, short stout legs, and a flexible short proboscis with the nostrils near the end. The fore-feet have four hoofed toes, of which the outer one scarcely reaches the ground; and on the hind-feet there are three toes. This toe-arrangement places the tapir between the types of ancient animals having an odd number and those having an even number of toes. The creature is rather pig-like in general form, and, as the pig, has a strong preference for forests, jungles, marshy and well-watered places.

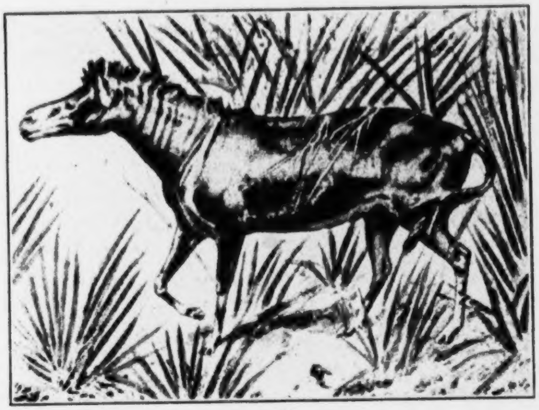
The peccary, of which there are but two species, belongs exclusively to the warmer regions of America, and very closely resembles the pig. It has the same form of snout and feet, but the head is more like that of the wild boar, and, like the boar, it is savage and pugnacious, and seeks its abode in wooded, thicketed, and watered regions. The classification is that of a sub-family of Suidæ, the latter term also including the pig.

Our ancient friend, the palæotherium, certainly was the remote precursor of the tapir and of all of the other pig-like creatures that now are upon the earth, as well as of the horse. Indeed, its restored form is so decidedly tapirish, and also is so suggestive of the pig, that but few changes would be needed to give it the aspects of either the one or the other. The anatomical structure and the physiological functions of the palæotherium appear to have been much the same as those of the tapir and of the pig, and evidently the animal transmitted through the ages these qualities and many of its habits and modes of life, not greatly changed, to these modern rather near representatives of its tribe. Its mobile lip, its dentition, rather heavily-built frame, and its processes of nutrition and of reproduction are said to have been essentially the same as those of the tapir and of the pig families.

The oldest direct representative of the suilline or pig-like tribe is the eohyus of Eocene times, and which was but little removed from the palæotherium. About the middle of the Miocene period there appeared another and somewhat more advanced creature, the achæodon. The first of these is said to have had at least four functional toes on each foot, while the second was the same as to toes, but had certain peculiar carnivore modifications. These forms have been found only in the western part of the United States. Remains of several different but more or less pig-like creatures have been found in the late Eocene and early Miocene deposits in Europe, which indicates that these earlier animals of North America had made their way to the other side of the world. In the middle of the Miocene, or soon thereafter, there were strong tendencies toward specialization among all of the hoofed animals, in which were included near approaches to the tapir and pig forms. In the last half of that period the true tapir and the true swine made their appearance, but the ox, the sheep, and the goat were still absent, though there were some indications of transition between a kind of antelope and the goat. Remains of several species of the genus to which the wild boar belongs have been found in the late Miocene and in the early Pliocene deposits of Europe and of India. One species in India is said to have attained in exceptional specimens a height to the shoulders of forty-nine inches or more. In the last half of the Miocene period a singular creature, the oreodon, the remains of which abound in the western part of the United States, was developed. It had the strange qualities that made it both pig-like and sheep-like, and is supposed to have been related to the anoplotherium. Because of its remarkable characteristics it has been termed a "ruminating hog," and is still a puzzle to paleontologists. It was herbivorous, smaller than the pig, and had four toes on each foot. In the Pliocene period it had either greatly developed in size or had been joined by another creature of similar strange qualities. Some authorities say the second was a new species, which they call the eporeodon, and which was about double the size of the other. At the close of the Pliocene both had disappeared.

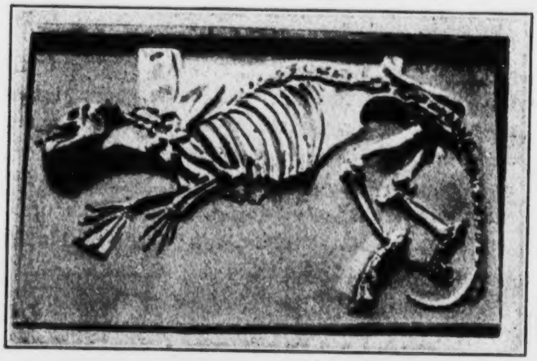
In the Pliocene period mammals were abundant all over the earth. Some of them had come down from the preceding period, but in the throng were a number of newer types that still have their representatives upon the earth. The wild boar, from which our domesticated pigs were derived, is one of the comparatively few mammals that originated in the later Miocene times and still exists but little changed in form and in character. Its very near relative, the peccary, indigenous to the western continent, was a late comer, for its fossil remains have not been found in deposits earlier than those of the early part of the Quaternary Era.

The origin of our domesticated ruminating animals, the cattle, the sheep, and the goats, has not been revealed by research so definitely as that of the non-ruminating. All of the horned species, proper, were, as geological time runs, comparatively late in making their appearance, and, as already mentioned, cattle, sheep, and goats were not among the many animals of the Miocene ages. Their forerunner would seem to have been a small antelopine creature that appears to have sprung from the deer family. Deer-like animals, believed to have been evolved from the early Eocene xiphodon, appeared soon after the opening of the Miocene period, and by the middle of that period had become true deer, but possessed only a simple kind of horn structure. At this time the antelopine creature referred to above had joined the throng, and had begun to manifest goat-like qualities that promised ultimately to convert it into a goat.



The Eohippus.
(From Smiley's "Outlines of the Earlier History of the Rocky Mountain Country.")

The several species of antelopes, including the "prong-horn" of North America, are members of the great family of hollow-horned ruminants (the Bovidæ), and therefore are intimately related to our cattle, sheep, and goats. Unlike the deer, which sheds and reproduces its solid antlers each year, the antelope has hollow horns that grow upon a bony core permanently attached to the skull, like the horn-cores of cattle. But the antelope follows the example of the deer in shedding its horns annually, and therefore we see in this animal a creature that stands between the deer, the solid antlers of which spring anew each year from a vascular integument of the head, and the ox which has a permanent tegumental horn encasing a likewise permanent bony horn-core. In view of these facts, it does not seem improbable that in the goat-ward divergence of the Miocene antelope we have the change that initiated the evolution of our domesticated horned animals.

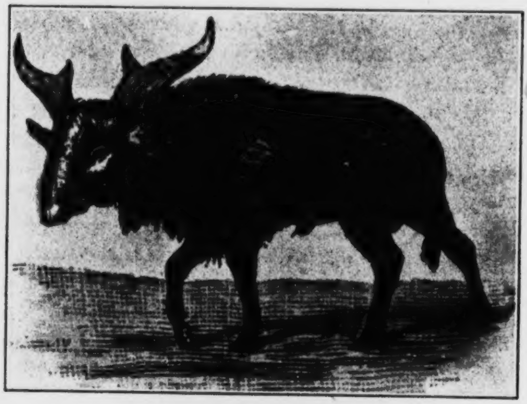


Fossil Skeleton of the Eohippus. The illustration shows how such remains appear in a fossilized condition. (*From Hayes' "Points of the Horse."*)

In later Miocene times there flourished in India, and, it is said, in the western part of our own country, also, a large, finely developed, moose-like animal, the sivatherium, so named in honor of one of the Hindu trinity of gods, and which appears to have been the first creature having fully developed antlers. It was well provided with horny weapons, for, in addition to its palmated antlers, which rudely resembled in form and position those of the moose, it had above each eye, and projecting outward and forward, a comparatively short horn, not much unlike in form, except as to length, the horns of a common steer. Notwithstanding its huge size, the sivatherium is, by nearly all authorities, held to have been a true antelope, which brings it also into relation with our domesticated horned animals. In all particulars of form back of the neck it is very similar to the xiphodon; its shorter and heavier neck and relatively larger head being accounted for by the weight of its antlers and its use of them in combat.

Through the close of the Miocene the tendency toward ruminating forms analogous to those of our domesticated horned animals continued, and, as we have seen, one result of this tendency appeared in the curious oreodon, in which the pig and the sheep were somewhat united. About the end of the Miocene period, or in the beginning of the Pliocene, there had come into being an animal that was but little removed from the true wild goat, and this would appear to place the evolution of our bewhiskered little friend in advance of that of cattle and sheep.

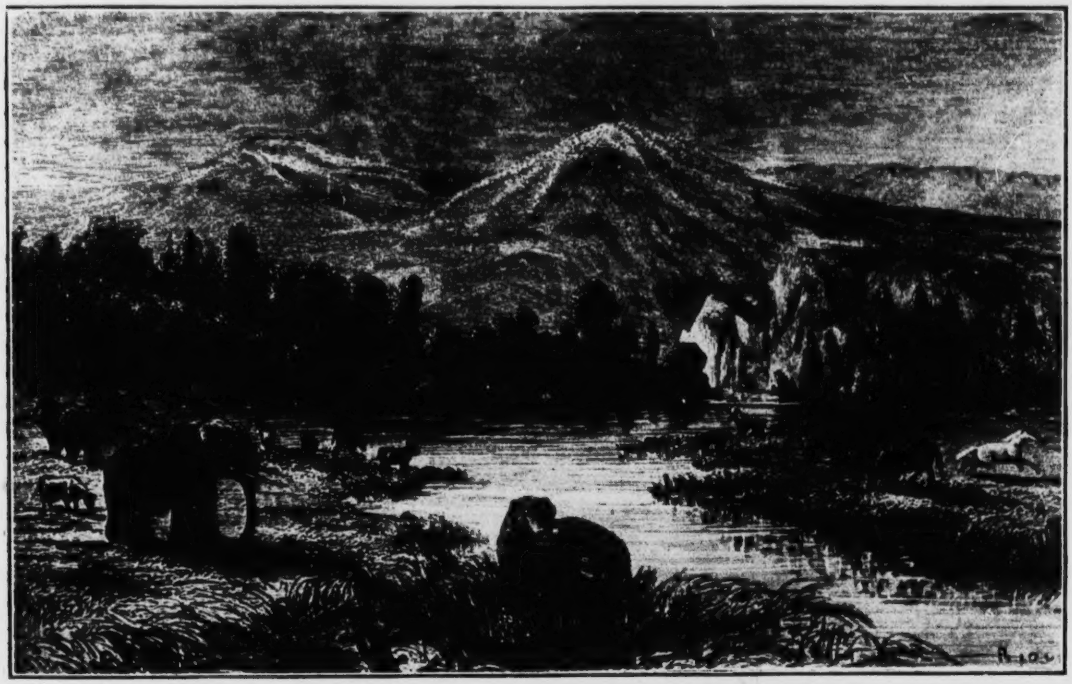
The earliest known fossil remains of the ox and of the sheep genus have been found in the late deposits of the Pliocene period. In a broad sense, the Pliocene mammals had made much progress in form and characteristics toward the mammals of historical times, and it may be said that a majority of the genera of that period consisted of such as still exist, although the species were in most cases distinct. While we know that our cattle, sheep, and goats are inter-related, and while it seems altogether probable, even certain, that their ancestry runs back to a common source, which is suggested by the character of the Eocene and of the Miocene mammals that we have had under consideration, definite knowledge of the various intermediate forms of their descent—forms that must have existed—remains yet to be acquired.



The Sivatherium.
(*From an illustration in the "Standard Dictionary."*)

Some paleontologists have suggested that cattle, sheep, and goats may have originated in the Old World, whence they migrated to the New World by way of some land connection in the north. But this has not received much acceptance, and it is pointed out that knowledge of the origin of their species is too deficient to permit of a definite designation of the region in which they made their appearance on the earth in their specific forms. However, the general conclusion is that they are creatures of the New World: that instead of coming here from the Old, they went from here to that side of our globe. Assuming that the American "buffalo" came down a divergent line of descent, which is rather certainly the case, although it is of the same genus, cattle proper became extinct in America. But the sheep still has its representative here in the Rocky Mountain wild sheep, and the goat in the Rocky Mountain wild goat. Wild cattle of the types from which our domesticated cattle evidently were derived roamed in Europe in the times of the Cæsars; and it has been alleged that some were in existence there as late as the first half of the sixteenth century, but this is improbable.

The extinction of species of animals in one part of the world, while they continue their existence in another part where conditions apparently are no more favorable, presents a problem which naturalists have been unable satisfactorily to solve. Civilized man already has completely exterminated several species, but extinction through natural causes is altogether a different matter. We cannot doubt that such work is going on among present forms of life, but the process is so gradual, and its manifestations are so casual, that we fail to see just what the causes are, what the influences are, that are thus clandestinely impairing the vitality of creatures and things still living in a state of nature. If, as Darwin puts it—"We ask ourselves why this or that species is rare, we answer that something is unfavorable to its conditions of life; but what that something is, we can hardly ever tell." On the supposition of the fossil horse still existing as a rare species, we might have felt certain, from the analogy of all other



Ideal Landscape at the close of the Tertiary Era.
(*From Figuier's "The World Before the Deluge"*)

mammals, even of the slow-breeding elephant, and from the history of the naturalization of the domestic horse in South America, that under more favorable conditions it would in a very few years have stocked the whole continent. But we could not have told what the unfavorable conditions were which checked its increase, whether some one or several contingencies, and at what period of the horse's life, and in what degree, they severally acted. If the conditions had gone on, however slowly, becoming less and less favorable, we assuredly should not have perceived the fact, yet the fossil horse would certainly have become rarer and rarer, and finally extinct; its place being seized on by some more successful competitor. The case of the horse here stated strikingly illustrates the mystery in which the subject of extinction is still involved, and how very limited is present knowledge in this direction. Why the horse tribe and cattle and swine should have become totally extinct on the American continent, at a comparatively early period after their evolution, when under apparently identical, or, at any rate, very similar, physical conditions, they continued to develop and thrive in the eastern hemisphere, is a problem, toward the solution of which only vague conjectures have been forthcoming. Nor is the difficulty in the matter lessened in the least, but rather the contrary, by the circumstance of the ready adaptability to conditions in the western hemisphere which our domestic animals have shown since man brought them back to this land of their remote ancestry.

The development of mammalian life in the Tertiary and Quaternary Eras was the greatest and most varied that ever has come to pass upon the earth, for, by comparison with it, such life since the Quaternary has been in a state of decline. In the Tertiary a warm climate prevailed over the whole world, and upon all the land everywhere rich vegetation abundantly afforded nutritious pasturage to vast herds of herbivorous animals. Early in the Quaternary these climatic conditions had undergone great changes, and the aspects of the earth had been brought much nearer to what they are now. If we could look across the ages to that time in the history of the world, we should see in our own country, as well as in the other temperate regions of our globe, a magnificent panorama of mountains, valleys, and lowlands, of placid lakes, and of rivers running to the sea; but of trees and plants and flowers constituting a vegetation far more luxurious than any that ever has been since.

While Nature has been and still is wonderfully prolific of animal life upon the earth, the latter has been regulated and held in check by several direct causes as well as by less obvious influences. Every species of animal has had destructive enemies in some other species of animal or other forms of life, and this process has served in all ages as a restraint upon the overproduction of any one species.

That any new type of animal, or one radically changed in form from those now living, will appear upon the land of the earth hereafter as a result of natural conditions, is exceedingly improbable, if not impossible. Certain it is that there will be none of sufficient size and importance to be worthy of man's notice. The course of natural evolution is so slow that any such structural and character change could be wrought only in the lapse of an immense period of time under natural conditions. But man himself is now the insuperable obstacle to the further natural evolution of animals. He is now in full command of all of the land of the earth, and not many generations will pass before he will be in occupation of every square mile of it that is capable of producing subsistence for his kind. Before him, all wild animals of any considerable size, and many that are not so, inevitably will disappear within a few centuries. All that are inimical to his personal welfare and to his material interests, or that he cannot utilize, he will destroy; and the careers of those that he retains for his advantage will be determined by his intelligence and his will. What he can do as an exterminator has been signally exemplified, not only in the fate of the American "buffalo," but in that of several other wild species of animals that were numerous in our country a century ago. Evolution has not reached the limit of its work upon the earth, nor will it cease its operations in one way or another as long as our planet exists; but man will relieve it of further attention to the animals. He will probably survive as long as any other species of land mammal, and while he is upon the earth the others will live only by his consent and directly under his dominion.

THE

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J. W. V. Springer

Hon. John W Springer.

"I see in times to come a new era, when there will be a marked diminution of human selfishness; when man will learn that to do right and to deal justly is more to be desired than ill-gotten gain; when man shall follow the advice by a western pioneer to his fellow-sufferers of 'Live and help to live.' The story of early days has not yet been written for the pioneer stockman. No one has had burned into his soul the sorrow, the trials, the perils, the hardships patiently endured by this hero of the vast plains, or by the faithful wife who shared the struggles of these early settlers and who together obtained possession, through blood and death, of the confines of the great grazing district of the Union. Our fathers crossed the prairies, as of old their fathers crossed the sea, to make the West as they did the East the homestead of the free.

"I never travel over these vast prairies to the empire State of Texas; I never fish in these rushing mountain streams of Colorado, Utah, and Nevada; I never drive a four-in-hand over the divides and the hills of the Dakotas, Montana, or Wyoming; I never camp under the mountain pines or cottonwood groves and lie down on grassy slopes; I never let my eyes sweep the horizon, over the towering snow-capped mountain peaks, over irregular stetching hills, far and away to the great grassy plains—I never, I repeat, walk or ride or drive over these magnificent distances, dotted with the homes of America's great-hearted stockmen, but I render profound thanks to the Giver of all good, our great Elder Brother, for these matchless evidences of His consideration for mankind.

"Apart and away from the active whirl of the speculator, the stock-jobber, and gambler in foods; not annoyed by the harping of the professional office-seeker; not suspecting every man's motive; not afflicted with the mental delusion that every woman who passes needs watching; but out under the canopy of sky, of sun, of moon; out where the winds are charged with life-giving ozone, health, happiness, and contentment, lives the American stockman, the uncrowned Prince of this rich and prosperous Nation."—[Extract from the address of Hon. John W. Springer before the fifth annual convention of the National Live Stock Association, Chicago, Illinois.]

John W. Springer was born in Jacksonville, Illinois, on the 16th of July, 1859. The Springer family is one of the well-known families of Illinois, and several of its members have gained a national reputation on account of their special ability and the earnestness with which they have carried forward the responsibilities entrusted to their care. The father and mother of Mr. Springer are living, and their home at Jacksonville is known to a wide circle of friends in Illinois and other States as the center of contentment and happiness. Hon. John T. Springer, father of John W. Springer, took up his residence at Jacksonville previous to the time of the Civil War, and during the years of the conflict was a prominent member of the Legislature of the State. He has been a life-long Democrat, but his sympathies during the struggle were with the national administration, and in every way possible he contributed to the support of the State, assisting in moulding and controlling public sentiment and in providing for the soldiers in the field. Mr. Springer for twenty-five years was actively engaged in the practice of law, but he also invested extensively in farming lands and for fifteen years filled the position of president of the first National Bank of Jacksonville.

Mrs. Springer, mother of John W. Springer (nee Sarah Henderson), is a member of the well-known Henderson family of Kentucky, and is known among her friends as a woman of rare judgment and an ideal wife and mother. Two daughters were born in the family, one of whom is the wife of Edward M. Kinman, a well-known attorney of Jacksonville, Illinois; the other daughter, Mrs. Lulu Singleton, died in 1892.

Colonel Charles F. Springer, of Illinois, an uncle of John W. Springer, was a great orator of the State, and gained merited honors in the Civil War at the head of one of the fighting regiments of Illinois. He was a member of the State Constitutional Convention, and for years served with wide recognition as member of the State Legislature.

Hon. William M. Springer, for twenty years member of Congress from the capital district of Illinois, and later a resident of Washington, District of Columbia, where he practiced before the Supreme Court of the United States, was an uncle of John W. Springer. For several years he held the position of general counsel of the National Live Stock Association.

John W. Springer was born under a fortunate star. He was fortunate in a home possessing every advantage of modern life; fortunate in being reared in a community possessing an atmosphere of refinement and education; and, above all, fortunate in inheriting a disposition which was wisely controlled by his parents.

The earlier years of Mr. Springer were passed in attendance at the public schools of Jacksonville and in the summer seasons on the farm. During the summer vacations he acquired a love of nature and of animals, and learned many useful things about farm life which he has applied in practical affairs. The father of Mr. Springer held that the best way to keep a boy out of mischief is to give him healthful, out-of-door employment. He was of the opinion that a boy cannot know too much about the various trades, and a general working knowledge of the trades should be a part of every boy's education. His son, therefore, was taught the arts of carpentering, house-painting, draughting, the feeding and tending of live stock, and the various occupations of the farm. There was no time in the programme for loafing, and as a result Mr. Springer acquired habits of industry which enable him, without serious inconvenience, to direct a score of business enterprises, each requiring special knowledge of details.

A taste for literature was early developed in the mind of Mr. Springer, and while a youth in school he excelled in declamation of selections from the great writers. The spirit of literary competition ran high in Central Illinois a quarter of a century ago, and young Springer entered many oratorical contests, carrying off book prizes, which were the foundation of a library now an important feature of his home. Four sets of prize volumes in his library bear the autograph of Dr. J. M. Sturdevant, president of Illinois College, and one of the great educators of the day. Mr. Springer, upon completing the course in the Jacksonville schools, attended Whipple Academy for two years, the preparatory school of Illinois College. He then spent one year as student in the college, but on account of advantages at De Pauw University, Greencastle, Indiana, he transferred his allegiance to that institution, and in 1875 was enrolled as a member of the sophomore class. There he spent three years, graduating with honors from the classical course in 1878. Out of a class of forty members, eight were chosen to deliver graduating addresses. Mr. Springer was one of the class-orators, and his address on "Statesmanship" evinced a solidity of thought, a happiness of expression, and a hopefulness of tone that attracted many congratulations. The hopefulness that marked the first important public utterance of the college graduate has ever been a leading characteristic of Mr. Springer. He is never a pessimist. Filled to the brim with a never-ceasing flow of energy, and absolutely convinced of the ability of young America to meet successfully every emergency, the word "fail" is not to be found in his vocabulary. He recognizes no result in any undertaking but success, and if temporarily obstructed in any enterprise, he makes use of the lesson in effecting one more step toward the final accomplishment.

While in college Mr. Springer enjoyed unexcelled advantages for cultivating the talent of oratory. He rapidly gained a place in the front rank as a debater, and was elected president of the literary society of the institution. He took great interest in the Phi Kappa Psi Society, of which he was also president, among whose members are to be found many of the leading men of the Nation. John Clark Ridpath, the celebrated historian, was a prominent member of the De Pauw faculty, and Mr. Springer will ever hold this celebrated teacher in grateful remembrance. Dr. Ridpath gave an impulse to the literary taste of Mr. Springer, and the latter regards Dr. Ridpath, whose death occurred three years ago, as one of the greatest philosophers and teachers America has ever known. Thousands of successful young men will bear witness to the truth of this assertion.

At the close of his college course, Mr. Springer, through the suggestion of his father, undertook a trip to Europe. The object of the journey was to gain a knowledge of the world before entering upon an active career. The experience proved that the time was well spent. It confirmed many impressions received through extensive study and reading, removed prejudices, and strengthened a love for country which is a controlling principle in the hearts of the great body of America's sons. Mr. Springer traveled through all the principal European countries, leaving the beaten paths as far to the side as possible, and coming into direct contact with the working people. England, Scotland, France, Germany, Switzerland, and Italy were each visited; the leading art centers and the great galleries of painting and sculpture were inspected; and a series of letters written by Mr. Springer which appeared in home newspapers, gave a graphic account of European scenes and people as they appeared to the eyes of an inquiring young American. In Rome Mr. Springer met with friends, and accepted an invitation to deliver an address to Americans sojourning in the city. He was greatly impressed by the interest shown by people of different nationalities in the United States and their longing to take up their abode under the Stars and Stripes. His observations on the eastern shore of the Atlantic left an indelible impression on his mind that kings, titles of nobility, and great standing armies are incompatible with true happiness and advancement of the mass of the people. The peasant in the field and the workman at his bench greeted the visitor with a hand-clasp whose earnestness could not be misunderstood; but everywhere it was evident that individual effort counted as nothing in a land where a man's destiny is controlled by his birth. The intense longing for liberty which Mr. Springer heard many times expressed was one of the pleasing surprises of the journey. The study of the conditions of the old world gave to him an impetus in the direction of sociological investigations which assisted materially in shaping his career.

Returning home, Mr. Springer, in compliance with the advice of his father, made a tour of the United States and Mexico. This trip was undertaken for educational purposes.

Immediately after graduating from De Pauw University Mr. Springer entered upon the study of law, and while traveling he continued to study. In 1880 he was admitted by the Supreme Court of Illinois to the practice of the bar.

At the age of twenty-one Mr. Springer opened a law office in Jacksonville, the town in which he was born. For ten years he followed the profession to which he seemed specially adapted by education and natural ability. Active, energetic, ambitious, possessing an engaging manner and attractive appearance, and at all times a close student and indefatigable worker, clients gathered about him, and John W. Springer, the young attorney of Jacksonville, became known as a rising member of the bar, who aimed to accomplish something, and whose shots seldom went wide of the mark. He was in urgent demand as a public speaker upon subjects outside of the law, and pioneers' societies, religious meetings, social assemblages, and political gatherings listened to the voice of the young attorney, and the general verdict was that a new element had appeared, one that would make its impress felt as the years passed. Mr. Springer proved to be effective in a marked degree in his addresses before juries, as he was gifted with the power of moving men—a power which he possesses at the present time in a much greater degree than in earlier years. Although strongly urged to enter upon criminal practice, Mr. Springer resisted the temptation, as he felt that civil and equity practice was more in accord with the standard which he sought to attain and to which he had been educated.

As a boy he became a member of the Methodist Church, and he has always been a worker and a speaker along the lines of religious thought. Bishop Cranston was one of his earliest pastors, and it was Bishop Cranston who trained him for his first successful effort to win a prize in a declamation contest.

As a clerk of the Committee on Territories of the Fiftieth Congress, Mr. Springer assisted in an important legal fight in the organization of Oklahoma Territory. The position of clerk of the committee was accepted by him because it gave him access to the floor of the House. Great cattle interests were opposed to the territorial bill, and the fight was one of the most bitter that was ever witnessed in the House of Representatives. President Cleveland was then in the White House, and a warm personal feeling grew up between Mr. Springer and Mr. Cleveland. In Washington Mr. Springer met the leaders of both the great political parties, and ties were formed which have since remained unbroken. John G. Carlisle, of Kentucky, one of the greatest parliamentarians that ever occupied the seat as Speaker of the House of Representatives, wielded the gavel during the turbulent debates of the Oklahoma Bill, when as many as 100 or 200 members of the House were upon the floor at one time, excitedly claiming recognition of the chair. Thomas B. Reed, of Maine; Major William A. Warner, of Missouri; Major William McKinley, of Ohio; and Joe Cannon, of Illinois, were prominent factors in the fight; and it was by close study and observation of these and other men of large mould that Mr. Springer gained a knowledge of parliamentary law which has made him recognized as one of the ablest presiding officers of the country. The Oklahoma Bill was passed, and the cattlemen soon buried the hatchet, as they belong to a broad-gauge class that recognizes merit even in an opponent.

It was as a member of the Thirty-seventh General Assembly of Illinois that Mr. Springer first attracted attention throughout the State. Upon request of leading citizens of Morgan County, and also at personal solicitation of Governor Palmer, who was a candidate for the United States Senate, Mr. Springer made the race for the House of Representatives. The Governor prophesied before the election that one vote would decide the senatorship, and his prophecy proved to be correct. Mr. Springer ran upon the Democratic ticket and won. The session of the Legislature was the most exciting ever experienced by the General Assembly of Illinois. For four months the State was rent in twain by the contentions at Springfield, and when the decisive ballot was taken John M. Palmer was elected to the United States Senate. Mr. Springer retains as a trophy of the great battle in which he was a leader, a gold medal ascribed to the "Immortals," a term applied to the 101 who were victorious in the conflict.

In the Legislature Mr. Springer was chairman of the Committee on Congressional Apportionment, was a member of the Judiciary Committee, the Committee on Judicial Department and Practice, the Committee on Railroads, and assisted in organizing the World's Fair.

While in Jacksonville, Mr. Springer was actively identified with musical, literary, and dramatic societies, and as an interpretor of Shakespeare he succeeded so well that many of his friends declared he was destined for the stage. He was a member of the Klonas Glee Club, composed of sixteen young men, who gave concerts with great success in the principal cities and towns of Central Illinois.

On the 17th of June, 1891, Mr. Springer was united in marriage at Dallas, Texas, to Miss Eliza Clifton Hughes, the only daughter of Colonel and Mrs. William E. Hughes. Colonel Hughes, a resident of Texas and Colorado, was for many years president of the Union Trust Company of St. Louis, one of the large financial institutions of the West. He has for years been extensively interested in the live-stock industry, and Mr. Springer was invited by him to take charge of his interests in Texas. The change of residence to the South required an abandonment of the profession to which he had devoted ten years of his life, the separation from old friends, and the formation of new ties in an untried field. Mr. Springer accepted the invitation, and his reception by the people of Texas was so cordial that he had no reason to regret the change. He located on one of the finest farms of the South in the suburbs of Dallas, and began at once to evince the liveliest interest in the State of his adoption and in all matters pertaining to the live-stock industry. He joined the Texas Cattle Raisers' Association, and an address which he delivered before that body brought him into prominence as a leader. He was immediately at the close of his address elected as a member of the board of directors of the association, and for five years, while he lived in Texas, was one of the most active workers in the cause of advancing the interests of the association and of the live-stock interests generally.

The financial question was coming to the front throughout the Nation; the advocates of gold and silver were pitted against each other, with Hon. William J. Bryan as the champion of the white metal. Mr. Springer and Mr. Bryan were old friends and law partners in Jacksonville, where both had played in the same baseball nine, and where they often faced each other upon opposite sides of a case in the court-room. When Mr. Springer looked into the financial question, and also contrasted the difference between what was known as the "Hogg" Democracy in Texas with the Democracy under which he had been reared in Illinois, he found that he had arrived at the parting of the ways. He could discover no middle ground, and he therefore cast his lot with the Republican party, supporting William McKinley upon the stump in each of the campaigns in which he was elected, and ardently advocating President Roosevelt. Mr. Springer was the choice of the Colorado delegation for nomination as vice-president, at the National Republican Convention of 1904.

Two daughters have been born to Mr. and Mrs. Springer, one of whom died in infancy four years ago. Annie Clifton Springer, the older, now twelve years of age, gives promise of inheriting all the good qualities of her parents.

In 1896 the health of Mrs. Springer required a change of climate, and the clear atmosphere of Colorado presented inducements which could not be overlooked. Upon the advice of physicians Mr. Springer located at Denver. Mrs. Springer died May 22, 1904.

An address which Mr. Springer delivered before the Denver Chamber of Commerce aroused considerable enthusiasm in the new sugar-beet industry and the packing industry, both of which were attracting public attention. He was elected a member of the board of directors of the Chamber of Commerce, and twice filled the position of first vice-president of that body. The agitation of the sugar beet question brought forth a special appropriation of $1,000; sugar-beet seed was purchased and distributed among the farmers; scientific tests of the beets were made, and a movement was inaugurated which has led to the investment of more than $10,000,000 in the industry in Colorado, now proven to be one of the most favorable regions of the world for growing sugar beets.

The cattle business was slowly recovering at this time from a severe depression, and a movement was started for a union of the live-stock interests of the West. Finally a call was issued for the organization of a National Live Stock Association. Denver was selected as the place of the first meeting, and when the live-stock men assembled they unanimously selected Mr. Springer as temporary chairman. In 1898 the first meeting of the National Live Stock Association was held, and each year the organization has increased in strength and ability to perform its work. Only one man was presented from year to year for seven years as the head of the association—John W. Springer—an honor which has few parallels in any other large organization of America. Pressure of private business obliged Mr. Springer to retire from the responsible position in 1904. To present, even briefly, the important work accomplished by this association since its organization in 1897 would transcend the limits of this article. Suffice it to say that the National Live Stock Association, judged by its membership, the material wealth represented, and the work performed through its instrumentality, is one of the most important industrial organizations of the continent and of the world.

Mr. Springer is a member of the National Wool Growers' Association, the Texas Cattle Raisers' Association, and the Douglas County (Colorado) Cattle Growers' Association; he is a member of the Gentlemen's Driving and Riding Club of Denver, the Overland Club, and the University Club; he is president of the Roosevelt Club, of 2,500 members, one of the largest clubs of the kind in the West, and is identified with a number of business enterprises, as follows: President of the Continental Coach Horse Company, with a ranch in Montana; president of the Esteline Supply Company, one of the leading mercantile corporations of the Panhandle of Texas; president of the Trémont (Galveston) Hotel Company; vice-president of the Continental Trust Company of Denver, one of the growing financial organizations; and secretary and treasurer of the Continental Land and Cattle Company of Texas. He is the owner of a model horse ranch of 5,000 acres, overlooking the city of Denver, where he is engaged on a large scale in breeding Oldenburg coach horses. For years past he has taken special interest in horse shows in various western cities, and has maintained one of the finest private stables in the West. His specialty is heavy harness hitches. He has carried off first prizes at St. Louis, Kansas City, Colorado Springs, and Denver.

As a member of the board of trustees of the University of Denver, Mr. Springer was called upon in 1902 to act as chairman of a Finance Committee, selected to liquidate a pressing debt of $175,000. This debt caused alarm among friends of the institution, and repeated plans for removing the obligation had failed. In seven months the burden was lifted, and the institution entered upon a new era of usefulness with 1,400 students upon its rolls.

Mr. Springer has gained a world-wide reputation as a public speaker. His annual addresses delivered before the National Live Stock Association for seven successive years were received with great favor throughout the United States and Europe, and were extensively called for from all the leading countries of the world where the live-stock industry flourishes. He has also for years past taken interest in the great irrigation problem, and the reclamation of arid lands of the West, and was secretary of the first Trans-Mississippi Congress, of which ex-Governor David R. Francis, of Missouri, was president. No man is better acquainted with the resources and possibilities of the vast unsettled or thinly populated areas of the West toward which the attention of the statesmen of all political parties is now being directed. A large part of the time of Mr. Springer while president of the National Live Stock Association was directed to questions growing out of the land problems.

Mr. Springer's addresses before the National Irrigation Congress, the University of Denver, the Colorado State Agricultural College, the Gross Medical College, the National Humane Society at Pittsburg, Pennsylvania, his memorial address upon the character and services of William McKinley, his magnificent Fourth of July address before the Colorado Chautauqua at Boulder in 1903, and his political addresses upon important issues, have commanded wide recognition. As a public speaker he is graceful, humorous, pathetic, argumentative, philosophical, or eloquent, according to the theme or the occasion, and his voice and effort are constantly in the direction of industry and the upbuilding of society.

Few men equal Mr. Springer in ability to hold the attention of a great audience, and it is doubtful whether a more capable presiding officer is to be found anywhere. He is the possessor of an unfailing supply of good humor, and is remarkably successful in carrying his audience with him. In the Tabernacle at Salt Lake, at the time of the meeting of the National Live Stock Association in 1901, he delivered an impromptu address before an immense audience that packed the auditorium to the doors, which was pronounced one of the most inspiring addresses ever heard in the historic building.

Mr. Springer is a close student of social and industrial problems, and however gloomy the outlook may be temporarily, the silver lining of the cloud is the one that greets his eye. He is intensely patriotic in thought and sentiment, and recognizes no obstacle that can seriously impede the onward march of the American Republic.

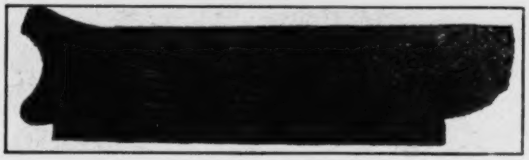
Domesticated and Wild Horses.

The Domesticated Horse.—Time and Place of Its Subjection Unknown.—Antiquity of Its Presence Among Ancient Peoples.—Zöological Position and Specific Character of the Horse.—Its Physical and Other Characteristics.—The Horse in England in Early Times.—Typical Asiatic Breeds.—Living Wild Horses of Asia.—Extinct European Wild Horses.—"Wild Horses" of the Plains of the United States, and of the Pampas of South America.—Acquisition of Horses by Our Western Indians and Its Effect Upon Them.—The Bronco, the Cayuse, and the Mustang.—"Wild Horses" of Australia.—Effects of Wild Life on Feral Horses.—Conceptions Associated with the Horse.—Man's Love for It.

All of essential importance that is lacking in our knowledge of the history of the horse, is information relative to the time, place, and circumstances of its domestication. Its evolution from a creature almost insignificant in size, to the fine animal of the close of the Tertiary Era is, as we have seen, well known, but this hiatus, which, if filled, would make the narrative substantially complete, is of a character that renders it pretty certain ever to remain a vacancy. From the evidence of philology it is plain that the domesticated horse had been well known to the Aryan peoples long before their dispersion from west-central Asia. While nothing is known of the people among whom it was first domesticated, nor of the country in which these pioneer horsemen dwelt, the rather general opinion is that it was the work of men who lived somewhere in the vast region loosely defined as Central Asia; although some authorities are of the belief that it came to pass in that part of northern Africa adjacent to Nubia and to Abyssinia; and these investigators further say that the ass was domesticated long before the horse was brought under subjection, and that the successful taming of the ass suggested a similar experiment with the nobler animal. The hill-and-mountain country of Abyssinia has, from an unknown antiquity, been, as it is at the present time, the home of a numerous variety of the wild ass, and therefore there would have been in northern Africa no great difficulty in obtaining material for experimental domestication of that animal. The fact that Egyptian land-owners in very early times possessed large herds of asses for domestic service lends some support to this theory of asinine priority in such service, but it does not carry any implication that horses first were domesticated in northern Africa, nor that they were contemporary in that part of the world with these very ancient domesticated Egyptian asses. On the other hand, the tablets of the Accadian King Sargon I. (3800 B. C.) prove that the horse was in use for war purposes by the people of the valleys of the Euphrates and Tigris Rivers long before it was known in Egypt. It was, as we have seen on a preceding page, unknown there in the period of the "Old Empire" that closed about 2100 B. C.; and of its subsequent introduction, Rawlinson, in his "Egypt and Babylon," says:

"Among the changes in manners and customs belonging to the Middle Empire, there is one which cannot be gainsaid—the introduction of the horse. The horse, which is wholly absent from the remains, written or sculptured, of the Old Empire, appears as well known and constantly employed in the very earliest records of the new, and must consequently have made its appearance in the interval. Hence it has been argued by those best acquainted with the ancient remains that the military successes of the Hyksos, and especially their conquest of Egypt, were probably the result to a considerable extent of their invading the country with a chariot force and with cavalry at a time when the Egyptians fought wholly on foot. Neither horses nor chariots, nor even carts, were known under the Pharaohs of the Old Empire; they were employed largely from the very beginning of the New Empire, the change having been effected by the empire which occupied the intervening space."

The "Old Empire" terminated with the end of the fourteenth dynasty, which was followed by the "Middle Empire" under the rule of the mysterious "Shepherd Kings" (the Hyksos), of whom there were three dynasties, covering a period of several hundred years, which is the "intervening space" referred to by Rawlinson, and in which horses were introduced into Egypt; the "New Empire" having begun with the eighteenth dynasty (1587 B. C.), with which native Egyptian rulers were restored to power. The reader will recall that horses are not included in what is said in "Genesis" of the Pharaoh's live-stock at the earlier time of Abraham's visit to Egypt, but we learn from the same source that when Joseph was "prime minister" under, it is supposed, one of these shepherd kings, that horses and chariots must have been numerous in the country, for we are told that when he went to Canaan to bury his father, there went up with him "a very great company, both chariots and horsemen"; while horses no less than cattle and asses were among the domesticated animals said to have been exchanged by the Egyptians for "corn" at the time of the famine. However, as has been mentioned heretofore, while the official classes and the rich commonly used the horse from the time of its introduction into Egypt, it was, to a very great extent, reserved for military purposes; the ass continuing to be the principal burden-carrier, and the ox the chief draft animal, as they long had been, among the masses of the people. But as fortunate individuals accumulated wealth they gave outward evidence of their opulence by the acquisition of horses. Adaptable to and efficient in so many tasks, as the horse is, the ass and the ox were generally used instead by the masses of the people of all the civilized ancient nations; the ass being easier for them to manage than the high-spirited horse, of a hardier nature, and consuming cheaper food to keep it in working condition. In our own times it is still the drudge of the peasant classes in southern Europe, northern Africa, and western Asia.



A Pre-historic Engraving on a Piece of Bone found in the Grotto of Les Eyzies, France.
(From Laing's "Human Origins."

The naked hunter is about to hurl his javelin into one of the running horses. The snake-like figure is supposed to represent an eel, but no good reason for its presence can be imagined. The engraving is one of great antiquity.

Conjectures as to the time and place of the subjugation of the horse and of our other domesticated creatures, and as to the people who originated this revolution in human affairs, have been fruitless. The beginning of the service of these animals with mankind is lost in the night of pre-historic ages, for the oldest human records that have come to light reveal them to us as the companions and servitors of man, and give no hint of the time when he took them from their wild life and adapted them to his own uses; but it appears probable that the "horned cattle" long had preceded the horse, ass, and pig in this servitude. In the case of the American turkey we have evidence that the process of domestication does not necessarily require long time. Unknown to the Old World before the discovery of America, the turkey is now common among the domestic fowls of nearly all civilized people. As this large, strong-winged bird was tamed within comparatively a small number of years, it is probable that pre-historic savage man, even with his narrower mental faculties, had no great difficulty in attaching herbivorous animals to himself after he had been awakened to his opportunities by his experience with the dog.

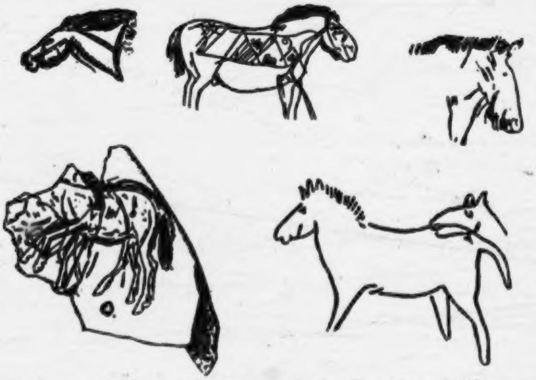
Zoölogically considered, the horse family consists of the single genus, *Equus*, is non-ruminating, and is distinguished from all other quadrupeds by having only one apparent toe, although under the skin, on the sides of the metacarpal and metatarsal bones are the rudiments of two others on each leg; the genus primarily being odd-toed. The family is divided into three groups: that of the horse, of the ass, and of the zebra, that so resemble each other in outward form and in internal economy, that a description of the typical species, the horse, would answer for all, with the exception of a few structural peculiarities; they are so nearly related to each other that they will breed together, but producing more or less unfertile hybrids, as in the case of the horse and the ass, and of both with the zebra.

The horse (*Equus caballus*) is distinguished from its relatives by its larger size, more elegant form, proportionately smaller head and ear, its mane and tail of long coarse hair, and by having horny patches or "chestnuts" on both pairs of legs—above the knee (wrist) on the fore, and below the hock (heel) on the hind. The animal has been much diversified in size, color, speed, and some other characteristics since its domestication, but all of these changes are results of breeding and development under the supervision of man, who began this work upon horses derived from a common wild stock. Research has proved that there were not distinctive varieties of wild horses from which various domesticated breeds descended. Formerly it was supposed that the light and fleet-footed Arabian horse represented a distinct wild breed, but it is known now that the Arabian is no more distinctive in its origin than is the Persian, or the English, or the American horse of high speed and great distance-endurance.

The speed of the horse is provided for by the angles formed by the several segments of the legs and by the length of the latter; the elongation of the metacarpus (which corresponds with the bones of the human hand between the wrist and the knuckles) and of the metatarsus (corresponding with the human foot-bones between the ankle and the toes) being so excessive as to cause the wrist and heel to be at the "knee" and "hock" respectively. Therefore, the legs of the horse, like those of all hoofed animals, allow the toes only to reach the ground; a specialization that commonly is not considered, for what are, strictly speaking, "wrists" and "ankles" usually are referred to as the knees. The lightness and agility of movement characteristic of each of the three groups of the horse family partly is provided for by the single functional toe of their feet, which is encased in a greatly developed nail or hoof; and which corresponds with the middle toe of the human foot, or to the middle finger of the human hand—the digits represented by the human "ring-finger" and fore-finger being absent, while the thumb and little finger have their representatives in the two concealed splint-bones. The hoof of the horse in combination with the "frog" of the foot presents an admirable adaptation to solidity and to elasticity, both in rapid locomotion and in the strain of hard pulling. The foot, though solid in front, is partially cleft behind, so that the terms "solid ungula" and "solipeda," applied to the horse family, are not strictly true; indeed, a solid, continuous, circle of horny structure would be very painful, if not entirely useless, as a mechanism of active movement. As it is, the foot often is impaired by crude methods of shoeing. The horse further is especially adapted to high speed and to long-continued movement by the absence of a gall bladder and by having a simple stomach which permits uninterrupted digestion. The gait is much varied: beside the walk, trot, gallop, and amble, pace, and rack, some horses gallop with the fore-legs and trot with the hind-legs, while others move each leg independently in succession; and still others have been trained to execute many purely artificial movements.

Figures of Horses cut on an Antler found in La Madelaine Cave in the Dordogne, France.
(*From Clodd's "Story of Primitive Man."*)

The adult dentition of the horse consists, both above and below, of six incisors, two canines (commonly absent in the mare), six premolars,



A Group of Horse-pictures made by Pre-historic Men on the Walls of Caves in France.

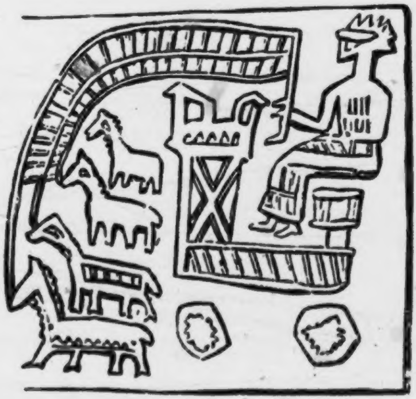
and six molars; the canines being small, and not infrequently the lower ones are missing. There is a considerable space between the canines and the molars, opposite the "corners" of the mouth, which man utilizes as a ready-made place for the reception of the bit, by the aid of which he controls his equine servant. No man ever buys a horse without first examining its teeth, approximately to ascertain its age, and the inexperienced do so more in deference to the custom than for any knowledge they gain. But the experienced horseman will not be much out of the way in his estimate, provided the animal is not far into the "old age" period, and in forming it his chief dependence will be upon the condition of a feature of the incisors. All of the milk incisors are shed before the age of five years, and the second set, slightly curved, are close together in a curved position at the front of the jaw, and are held in place by long simple fangs; their crowns are broad, thick, and short, and of an elliptical form before they are much worn. A fold of enamel penetrates the crown like the inverted finger of a glove, and presents an island of enamel enclosing a cavity partly filled with cement and partly by the food. This is the so-called "mark" that is useful in determining the age of the animal. It acquires a dark color, changes its form, and finally disappears in very old horses, as their teeth become worn below the penetrating fold. Usually it is obliterated in the middle incisors of the second set at the sixth year, and in the next and in the outer pairs in the seventh and eighth years respectively in the lower jaw, remaining longer in the upper. But in the teeth of both jaws its former place is indicated for several years later by the darkening color of the cement, in frequent instances to the age of sixteen, after which the summits begin to assume a triangular form. The "cement," it may be remarked here, is the outer layer of the teeth. In youth it forms a thin covering to the enamel on the outside; and a thick one in the depressions which all of the teeth, with the exception of the tushes, have in their crowns; the cement quickly becoming stained by the action of the food, thus giving the "mark" in the teeth its characteristic dark appearance. The front teeth of a horse become white with age from the wearing away of the cement. Ordinarily the mark can be trusted approximately to indicate the age of a horse up to ten or eleven years, but after that, so far as the teeth are consulted, only their general condition can be suggestive. However, the years of a horse's "prime" are comparatively few, and when the twelfth has been reached its age usually ceases to be of more than secondary importance.

Each group of the genus *Equus* is strictly herbivorous, the horse being even daintily so, and with its well-arranged cutting teeth can crop profitably after cattle, and yet leave something for the nibbling, narrow-jawed sheep. The nicety of the horse with respect to what it eats, and its cleanliness of habits, have induced within recent times and to a limited extent a return to the ancient practice of using its flesh as human food. This has not as yet been received with favor in the United States, and such attempts as have been made here to introduce horse-flesh as an article of food mostly have been of a surreptitous character; but in continental Europe its use is open and increasing, and experience has amply proved that it is savory, nutritious, and wholesome. However, between the abundance of meat-food in the United States, on the one hand, and the popular sentimental regard for the animal on the other, it is not likely that the people of our country soon will engage generally in eating their horses.

The domesticated horse has been distributed, through the agency of man, over much the greater portion of all of the land of the earth, and in nearly all parts into which it has been taken it has flourished to a remarkable degree. It is acclimated easily, and in tropical regions its hair becomes short and sparse, while in the temperate zones it changes to suit the recurring seasons, and in higher latitudes lengthens to three or four inches and thickens so as to be almost woolly. There is also a tendency to become lighter in color in winter, and in some English ponies this has been so far developed as to produce a change from the summer reddish-brown to a winter perfect white. It is not known that this tendency to mere seasonal changes in the color of the coat is transmitted, yet it probably is so, as all shades of color are strongly inherited by the horse.

With this animal the period of gestation is of about eleven months, and as a rule but one young is produced; and in the rare exceptions to this rule the offspring, if not deformed and worthless, usually is feeble, and even in maturity betrays the unfavorable circumstances of its birth. The thoroughbred horse matures at about four and one-half years, and its full natural term of life is about thirty years; the English hunting type requires about six and one-quarter years to reach maturity, and has a natural term of about thirty-five years; the Arabian horse is still slower and lives longer, maturing at about eight years, and having a natural term of life of about forty years. But our common every-day horse rarely lives to the age of thirty, and usually is not serviceable for speed or for hard work for more than a half of this period.

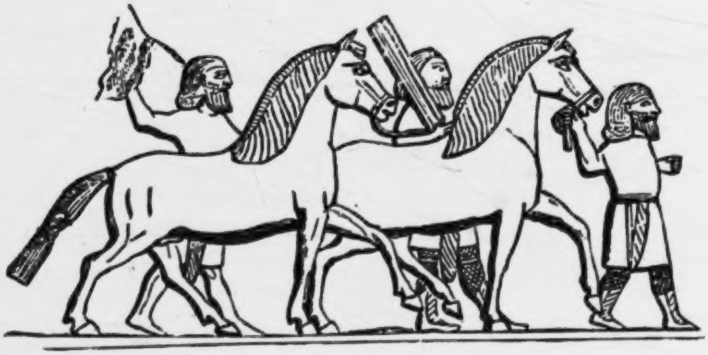
In compactness of form, elegance of proportions, and grace of movement, combining speed and strength, the horse is unsurpassed among animals; and by many people it is thought to be, all things considered, the most useful of the domesticated creatures. Its voice as heard in the neigh and in the whinny is more flexible, and also more agreeable to the ear, than that of most animals, but its scream when it is terrified or in agony is an appalling sound. As is common among many animals, the females exercise the voice much less frequently than do the males —an economy of energy that is, however, said not to be characteristic of that sex of the genus *homo*. As we have horses varying in size from pigmy ponies to giant draft animals, in which much diversity of figure and color appears, so also we find corresponding diversity in their intellectual and moral qualities.. Some are bold, intelligent, or good-natured, while others are timid, dull, or cross; although, with but rare exceptions, all are brave in the defense of their young. It is said by competent authorities that the horse naturally is gentle, courageous, and confident, and that cowardice, dullness, or viciousness, are, in a general way, due to continued neglect, harsh treatment, and other consequences of men's ignorance; and also that these undesirable qualities may in this manner be made characteristic of a breed of horses. The horse is capable of deep and lasting attachment to a degree next to that of the dog; and normally has quick perceptions and an excellent memory, through which its education for ordinary purposes is made easy, and that enable it under a skilled trainer to manifest almost human intelligence, as has been demonstrated repeatedly by horses that have exhibited their accomplishments for the edification and entertainment of the public.



Very Ancient Babylonian Representation of Four Horses and a Chariot.
(*From Hommel's "Babylonians and Assyrians."*)

Broadly speaking, the horses of the United States have a closer relation to English stock than to that of any other foreign country, although certain types of American horses now are so highly developed that the traces of English influences upon them are almost effaced, and therefore these types may be considered as constituting independent classes.

The ancient Britons were in possession of domesticated horses from a very early period, and used them in resisting the Roman invasion (55 B. C.). The cave-dwellers of England had been followed by the Iberians, a small dark people probably of the same race as the Basques of the Pyrenees, but quite alien in blood to the other races of Europe and to the men who superseded them in Britain. Pre-historic in origin, these people were far more advanced in the arts of living. They provided themselves shelter by building hovels of earth roofed in with branches, and secured a surer food supply than Nature afforded by burning a clear space in the forest and planting it with grain. Among them horses, as well as cattle, sheep, goats, pigs, and dogs, were domesticated and held as personal property.

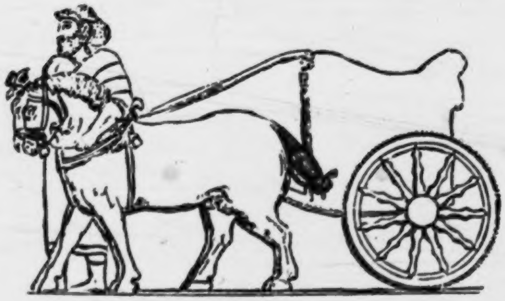


Ancient Susianian Horses.
(*From Rawlinson's "Ancient Monarchies"*)
Susian was the "Shushan" of the Biblical book of "Esther."

Seven or eight centuries B. C. new people made their way from the continent to Britain. They were Celts, a branch of the great Aryan race-family, and closely related to the tribes then inhabiting Spain and Gaul. Their superiority enabled them readily to overmaster the Iberians, who were reduced to slavery. When history first takes note of these Celts they had reached the stock-raising stage of development and had many horses. In that period the Phœnician maratime traders began visiting Britain, and their initial voyages may have antedated the coming of the Celts. Late in the pre-Christian Era tribes of Gauls and Belgians entered the country, and soon afterward a considerable commerce arose between it and the continent.

The earliest direct historical reference to the British horse is that of Cæsar, in which he mentions the native "essedarii" and the skill with which they handled their war chariots; the horses being of medium size, and very hardy from the harsh conditions of their existence. After the occupation of England by the Romans, it appears that the horses of their cavalry were crossed with the native mares, and thus there was infused into the breed a new blood, consisting probably of strains from every quarter from which Roman remounts were procured. As to the effect of this cross there are no means of judging. The extent to which the Angles, Saxons, and Jutes, who conquered England in the fifth and sixth centuries, may, in their turn, have introduced new breeds or varieties of horses into England, also is uncertain. From the fact that during nearly the whole of the Anglo-Saxon period in English history there was a high court-official known as the "horsthegn," it would seem that in that time horses had attained much importance in the realm; and from such a law as that of the Anglo-Saxon King Athelstan (crowned in 925) prohibiting the exportation of horses except as presents, it may be inferred that the English breed of that time was not only much valued at home, but also in great request abroad. But this can only be inferred, for even to the close of the Anglo-Saxon period (in the eleventh century) historical allusions to the horse are still very infrequent. Indeed they continue to be rather scarce through several succeeding centuries, but it is of record that King John in 1199 encouraged horse-breeding by causing to be imported a number of Flemish stallions, which are said to have been the sources of the English heavy draft-horses. In 1327, Edward III., in order, as it is said, to improve the breed of horses in England, prohibited their exportation, as Athelstan had done about 400 years earlier; and about 1380 Richard II. by decree compelled dealers in horses to limit their prices within a fixed maximum.

The civilized and the semi-civilized peoples of central and western Asia very early developed breeds peculiarly adapted to climatic and other conditions in the several countries, and to the particular needs of each people. The Arabians' horse became remarkable for fleetness, endurance, and docility; and its blood by intermixture has been made to improve other races, of all sizes and conditions, producing breeds most highly valued both in Europe and in America. The Tartars developed a horse that is undersized, but very hardy, accustomed to inclemencies of weather and scarcity of food, but capable of performing long journeys with great speed. The Persian horse has qualities similar to those of the Arabian, but it is of not quite so great endurance. During the reign of Elizabeth (1533-1603) Persian horses were introduced into England, and by their cross with the country stock produced an excellent breed. The Turkish horses, which also have influenced breeds of western nations, retain most of the characteristics of the Arabian, from which they are descended. Early Spanish breeds derived from the horses of Barbary, North Africa, which in turn were of Arabian origin and characteristics, once were in good repute in Europe, both for civil and military purposes, but through lack of attention they degenerated and became unimportant. This Barbary stock was more or less represented in the horses brought to America by the Spanish explorers and colonists.



Ancient Persian Horses and Chariot.
(*From Rawlinson's "Ancient Monarchies."*)

The primitive stock of the domesticated horse had, until recently, been believed to be wholly extinct. For a long time herds of horses called "tarpans," have been known to exist in a state of freedom upon the steppes of central Asia, but it was also known that these were descendants of domesticated horses. They are dun-colored, have short manes, and in general do not differ much from the domestic horses of the same region.

There also are found in west-central and southwestern Asia many bands of really wild and somewhat horse-like animals that evidently were the fertile so-called "mules" of ancient times, but which are neither horses nor mules. They are widely scattered over a vast domain, and, notwithstanding their rather short ears (for their tribe) and other horse-like peculiarities, constitute three recognized species of asses. One of these, the hemione, of Thibet, which also is known as the kiang and as the dziggetai, is larger than the common ass, and is rather "horsish" in its appearance. Another, and the better known of these two, somewhat smaller than the hemione, and which has a wide range, is the onager, otherwise the onagra of the ancients and of the Prussian naturalist, Pallas, the ghor khur of the Hindus, the ghour kerdecht of the Persians, and the koulan of the Khirghis—a species common in zöological gardens, where it is bred easily. The third is the hemippus, or Syrian ass, which has more of the characteristics of the domesticated species. Some further account of these creatures appears in a succeeding section of this volume.

North of the central plateau of Asia the steppes of Turkestan are prolonged so as to form the Desert of Gobi, and again farther east into the Desert of Dzungari. This region, situated immediately south of Siberia, from which it is separated by the valley of the Amoor, and north of the Thian-Shan Mountains, which separate it from China, remained almost unexplored till the time when it passed from the dominion of the Chinese to that of the Russians. In this desert region the Russian traveler and explorer, Prejelvalski, discovered, in 1881, a wild horse distinct from both the tarpan and from the two varieties of wild asses referred to above. These wild horses live in small herds of from five to fifteen individuals, under the command of an old stallion. They are very suspicious, and rarely allow themselves to be approached within gun-shot. Extremely swift, usually they escape easily from the best-mounted hunters; and it was with great difficulty that Prejelvalski, after several fruitless pursuits, succeeded in bringing down a three-year-old stallion.

This wild horse of Dzungaria is about the size of the onager; that is, of a rather large domestic ass or of a smallish mule, but more robust in form, in which it greatly resembles the Shetland and the Hungarian ponies. Its head is large, the ears smaller than those of the hemione, the shoulders are thick—especially in the male, and the legs heavier and stubbier than those of either the hemione or of the onager. The mane is short and straight, and the moderately long tail is terminated by a tuft of long hair in much more abundant supply than in the tail of the hemione. It has warts on the hind-legs as well as on the fore-legs—one of the peculiarities of the horse which distinguish it from the other animals of the genus, which have warts only on the fore-legs. The hoofs are full, like those of the horse, and not compressed as in the others; and the lower parts of the legs are furnished with long hair that falls to the crown of the hoof, a feature which the hemiones lack, but which is conspicuously present in several of our modern breeds of horses. Likewise characteristic is the color of the hair of the body, which is almost white, passing into dun on the head and neck, and blending insensibly on the flanks with the pure white of the belly and of the legs. The mane, the brush of the tail, and the long hair on the lower parts of the legs and around the hoofs, are black; altogether making a very striking coloring. There is no trace of the dark dorsal stripe running from the mane to the tail, which is characteristic of the asinine tribe. The hairy covering is long and undulating, especially in the rigorous winter season of that northern region.

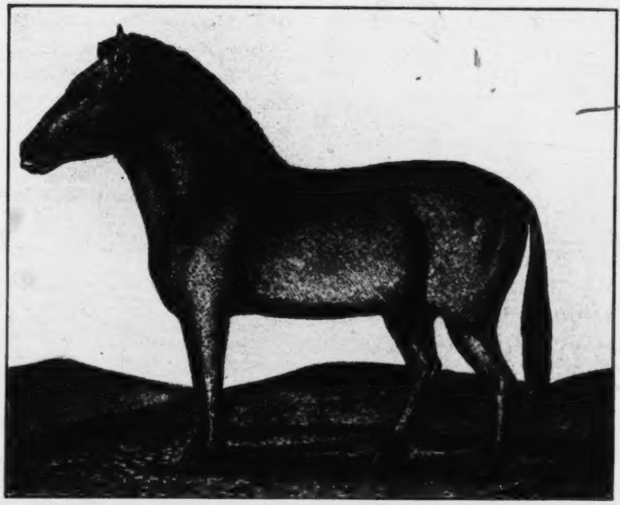
The Asiatic Tarpan.
(*From Wright's "Natural History."*)
This animal is not much unlike our bronco.

In external appearance, as shown in the foregoing, this animal is very much like the small horse, or pony. Among the representations of equine creatures of the Quartenary Era, engraved by primitive men of considerable artistic ability on reindeer horn, ivory, and slate, and scratched upon the walls of caverns in which they lived, discovered in southern France, there are some very clearly showing horses with brush tails and short ears like those of the Prejelvalski horse; and the horse-bones found in the débris left by these people indicate that the wild horses they killed for food with their flint-headed arrows were considerably smaller than the modern horse, had relatively large heads, straight short necks, round bodies, and rather short legs. Furthermore, among ancient Greek representations of the horse are some figures that bear a close resemblance to that of Prejelvalski's animal. According to Herodotus (fifth century B. C.) there were in his time wild horses in Scythia which were white, like this wild horse of Asia.

It is now believed that this Dzungarian horse is the true primitive horse, and that it represents the original stock of all domesticated horses; comparison of its osteological structure with remains of the Quaternary horse having led to the conclusion that the identity of the two types plainly is apparent.

Every probability points to Asia as being the part of the world in which horses first were domesticated, and also leads us to believe that they were in man's service there several thousand years before the primitive people of Europe knew the animals other than as wild creatures to be hunted down for food. As we have seen in a previous chapter, there were multitudes of them in Europe in pre-historic times; and it has been alleged that some continued there into the Christian Era. According to the following statement made in a book published at Strasburg in 1593, wild horses were supposed to be still living in the Vosges Mountains of France and Germany in the sixteenth century.

"Among the animals that are met in the Vosges, first to be noticed, which would be a marvel in many countries, are the wild horses. They keep in the forests and the mountains, providing their own support, and breeding and increasing at all seasons."

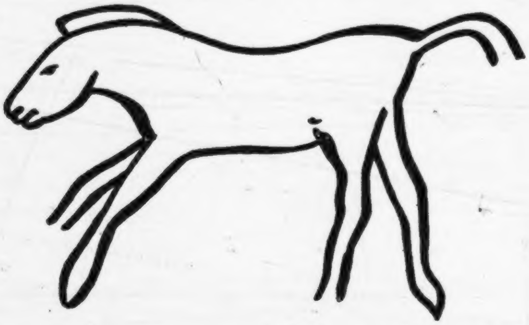


Prejelvalski's Wild Horse of Dzungaria.
(From the "Popular Science Monthly," September, 1890.)

Some other accounts say that wild horses existed in that century in the Swiss Alps and in Prussia, and that their flesh was eaten by the people as it was by the Quaternary savages of Europe. But it is obvious that these late European "wild horses" must have been descendants of domesticated stock, and that they were the same kind of "wild horses" that have existed in America since about a century after the Columbian discovery.

The vast general region of our country in the midst of which the Rocky Mountain ranges now tower aloft, was the original home of the horse and of his evolutionary progenitors. As mentioned in a preceding part of this volume, it is supposed that the Asiatic and European primitive horses were emigrants from America by way of an ancient land-connection in the northwest, either where Behring's Strait later broke through, or by one the vestiges of which are seen in the Aleutian Islands. From North America the horse also made its way into South America, where, on the all but limitless pampas, it found conditions that were exceedingly favorable to its preferred mode of life. It existed in great numbers in both grand divisions of the American continent for an unknown length of time, as mere years run, and yet it became so completely extinct that there was not, as we have seen in the experiences of the invading Spaniards, even a tradition of it remaining among the native races at the time of the Columbian discovery.

Notwithstanding that the western hemisphere was entirely destitute of horses at that time, it has been proved beyond doubt, from the great number of their fossilized and semi-fossilized remains that exist in both divisions of the continent, and that have been found all the way from Alaska to Patagonia, that anciently the animals not only inhabited, but abounded in, America; and also that they still were here in a comparatively recent period—that is to say, recent, in the sense that a time tens of thousands of years in the past is recent. Furthermore, these investigations have led to the conclusion that, almost beyond any question, horses did not disappear from America until after savage races of men—of what kind no one knows—had become established on this continent. Whether they were exterminated by these primitive people, or became extinct from natural causes, is a problem which still awaits solution. However, it is difficult to reconcile the theory of natural extinction with the fact that, under apparently identical physical conditions of soil, climate, and vegetation, the introduced animals have been able to thrive so remarkably in all of the habitable parts of America.

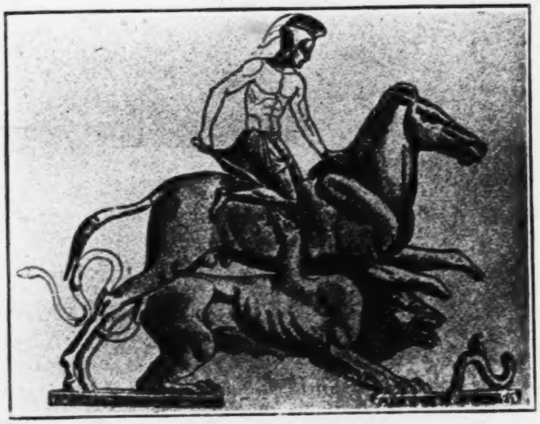


Engraving on Bone, representing a Horse with a Brush Tail and Erect Mane, found in the Cave of Lorthet-Fouilles, France.
(*From the "Popular Science Monthly," September*, 1890.)
The mane and heavy neck of this figure are suggestive of Prejelvalski's wild horse.

Some references made to animals in South America by certain old Spanish writers have been construed possibly as implying that native horses still lingered in that part of the New World after the advent of the Spanish explorers and colonists. But there is little foundation in the incidental allusions contained in these narratives to support even a tensely strained conclusion that such was the case. On the other hand, as far as any accounts directly bearing on the matter are given, the native people of South America—who were of a lower order of humanity than most of those of North America—to the extent that they were capable of manifesting emotion of any kind, regarded the horse and all of the other domestic animals introduced into their country by the Spaniards with awe or astonishment. This would not have been the case with the horse had it existed wild in their country at that time.

Between fifty and seventy-five years ago it was very generally believed by the people then living in the United States, that upon the great plains of the West there were multitudes of beautiful wild horses and of fine wild cattle. Certain books and many tales of travelers that purported to deal with life and adventures on the plains, and which contained grossly exaggerated accounts of droves and herds of these animals, were responsible for the popular errors. In some instances the stories in the books were supported by absurd pictures in the fore-ground of which large and high-spirited horses or comely and well-rounded cattle were conspicuous objects. One very interesting narrative, to which was given wide circulation, told of a large white stallion, having glossy jet-black ears, mane, and tail that was the able leader of a great drove of exceptionally fine wild horses. This particular equine organization was reported to have been seen many times, and according to these reports it ranged over all of the vast empire bounded by the Missouri River, the Rocky Mountains, northern Montana, and southern Texas. Repeated attempts were said to have been made to capture the large and beautiful leader of this active band, but in each instance it succeeded easily in escaping servitude, and also in guiding its associates beyond the reach of the covetous white men.

It is not necessary to dwell upon the fictional elements in these old stories. The horses that then ran wild upon the western plains were neither very large nor beautiful, nor was there at any time a great number of them. They were



Bellerophon Slaying the Chimæra.
(*From Carus' "History of the Devil."*)
This horse resembles, especially as to the head, Prejelvalski's wild horse of Dzungaria.

degenerated descendants of estrays and castaways brought into Mexico and New Mexico by the Spaniards, though it is possible that some of their progenitors got into the country by way of the French settlements in Louisiana. Therefore, there had not been a great many generations of them in the wild state. The three that Coronado lost in 1541 were the first free horses that roamed upon our western plains, however brief their wild careers may have been. In the last half of the seventeenth century the Spaniards had many horses in New Mexico, and in the first quarter of the eighteenth century French explorers advanced by land far into the country northwest from New Orleans. In 1720 a Spanish military and colonizing expedition set out from Santa Fé and proceeded northeastward to or near to the Missouri River, where the Indians annihilated it; killing all of the people except a priest, who escaped and made his way back to Santa Fé to tell the tragic story. There is said to have been 1,500 persons in this expedition, a large part of whom were civilians—men, women, and children; and that they took with them "a vast many horses and cattle." It is probable that more or less of these horses escaped destruction at the hands of the Indians and took to a free life in the open country.

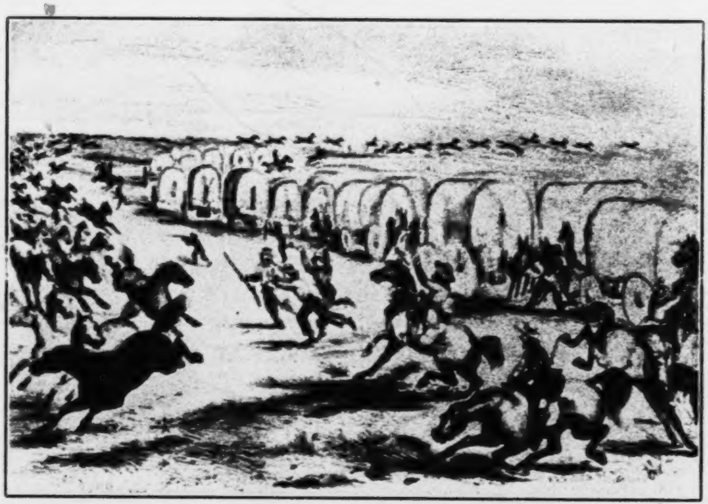
Ancient Greek Figures of Horses on the Frieze of the Parthenon.
(*From West's "Ancient History."*)
These horses bear a close resemblance to Prejelvalski's wild horse.

Whatever may have been the character of the original free horses of the plains, their descendants were medium in size, wiry, hardy beasts, with a very decided tendency toward horse-ugliness. The Indians appear to have captured and made use of some of them very soon after the animals had become established in the wild life, and it is probable that they did this by taking the young colts and rearing them. There were no horses running wild east of the Mississippi River, and therefore the Indians of that part of the country had no knowledge of the animals until they were introduced among them by the French and English settlers coming from the east. However, the eastern Indians did not adopt and use horses to any considerable extent until after the remnants of tribes that had not been exterminated had been transplanted upon reservations in the West.

The acquisition of horses, and later that of fire-arms, through the agency of white men, had great influence upon the character of the western Indians. Prior to the changes wrought by these acquisitions the Indians probably were far more peaceful among themselves, and tribes or clans were confined to less extended areas of country. Therefore, their accumulations of personal property had not been in kind or in quantity such as to be tempting to neighbors, and their modes of warfare not excessively destructive. With their former crude weapons, battle was largely a matter of hand-to-hand conflict, with results depending principally upon individual prowess; while warfare for plunder, conquest, and tribute was almost unknown among them. In the horseless and gunless period of their history, when they had to travel afoot and when the bow was their best weapon, the tribes had more permanent abiding places and each remained more closely within the region it claimed as its own. But with the horse the Indians of the plains were enabled to move easily and speedily over long distances, which practically had been impossible before; and when they began to carry guns with them on horseback tribal aggressiveness became stimulated to the highest pitch. The horse made wanderers of the tribes that lived on the plains, thus stamping upon them the chief characteristic of their precarious existence.

The total number of horses possessed by the various tribes of plains Indians when they were roaming at will over the country fifty or sixty years ago was not a determinable quantity, but such estimates as were made generally were too high, as was the case also with estimates of

Indian population. But horses were regarded as measures of wealth, and an Indian's pride of purse and consequent disposition haughtily to be domineering were in exact proportion to the number that he owned. Like the wild stock from which they were derived, these horses were neither large nor beautiful. The rough-and-tumble wild life of their progenitors had caused deterioration, and to this had been added the results of harsh treatment while in captivity to their ignorant savage masters. Yet, it must be admitted that the Indian horse, or "pony," was pretty well adapted to the uses to which he was put. Many of his descendants now are employed upon the cattle and the sheep ranges, and on other ranches, in the western part of the United States, and their general toughness of both physical and moral character admirably fits them for such service.



Stampeding "Wild" Horses of Texas Encountering a Wagon Train.
(From Bartlett's "Narrative of Explorations" in 1850-'52, by the United States and Mexican Boundary Commission.)

At the present time these animals are somewhat indiscriminately called either "broncos," or "cayuses," or "mustangs"; although the latter is becoming obsolete. The cayuse properly is a pony, bred by the Cayuse Indians of eastern Oregon, or a direct descendant of such an animal. A bronco may be any nearly, or wholly, unbroken horse bred from Indian stock. The word "bronco" is Spanish, and its literal meaning is "rough," but when applied to a horse originally it was intended to signify that the animal was one that could not be broken and reduced to docile subjection. The mustang is practically the same as the bronco, the name having been applied rather earlier to the half-wild horse more or less identified with those that formerly ran wild, and from which the Indians derived their stock. The word is from the Spanish "mestaño," meaning "wild," and its derivative, "mustanger," means a man who "ropes" mustangs for the market—an occupation that now has fallen into decay. As a practical proposition there would seem to be more of distinction than of difference at present between the cayuse, bronco, and mustang, although the latter originally meant a horse running free upon the plains.

A hundred years ago there were many times more horses running wild upon the South American pampas than ever there were at any time upon the plains of our country; and there is said to be still a large number of them in the remote parts of the interior, although but little has been heard about them in recent years. These animals are, of course, descendants of horses estrayed from or abandoned by the early Spanish explorers and settlers in that part of the western world. In Australia also the same kind of "wild horses," the "brumbies," became fairly numerous within comparatively a short time after the English occupation of that continental island, and there are many of them yet roaming its wilds.

Horses, such as these, after having lived independently for about a score of generations, exempt from the influences of man, plainly will show indications of reversion toward the true wild type. Generally they become smaller, but more muscular than their domesticated ancestors, have less variety of color, stronger legs, relatively larger heads, rather longer and less erect ears, bushier manes, rougher coats, and smaller and more pointed hoofs. When a troop of such free creatures falls in with domesticated horses, the latter, if possibly they can do so, will rush to their wild relatives and join them in a headlong stampede, and so become irretrievably lost; thus proving that the wild instincts are not very far from the surface in the domesticated animal. However, usually it is not a seriously difficult matter to bring such free horses, even when adult, into subjection and to make them serviceable.

It is only a few centuries since man began to reduce the horse to work of common drudgery. Through all of the preceding ages of the animal's career in domestication its principal, if not undivided, business in life was to serve in the military enterprises of its masters, and in capacities allied to such service; and it appears, as we have seen, that ancient nations reserved the horse for war purposes, almost to its exclusion from any other use. From the very dawn of history the horse has been associated with man in his wars and conquests, and therefore has been closely identified with his deeds of valor and with his triumphs. Nearly 6,000 years ago King Sargon of Accad perpetuated in inscriptions on enduring tablets his boastings of victories mainly won by means of horse-drawn chariots, and ever since that remote time the idea expressed in the term "war-horse" has been synonymous with a combination of fierce courage, daring, determination, and endurance. The author of the Book of Job used the war-like character attributed to the horse with fine effect in the Lord's answer out of the whirlwind to the complainings of the afflicted and unhappy hero of that remarkable story:

Two Dzungarian Wild Colts in the New York Zoölogical Park.
(*From a photograph.*)

"Hast thou given the horse strength? hast thou clothed his neck with thunder?

"Cans't thou make him afraid as a grasshopper? the glory of his nostrils is terrible.

"He paweth in the valley, and rejoiceth in his strength: he goeth on to meet the armed men.

"He mocketh at fear, and is not affrighted; neither turneth he back from the sword.

"The quiver rattleth against him, the glittering spear and the shield.

"He swalloweth the ground with fierceness and rage: neither believeth he that it is the sound of the trumpet.

"He saith among the trumpets, Ha, ha; and he smelleth the battle afar off, the thunder of the captains, and the shouting."

From the Latin determinate word, "*caballus,*" which is used by us to designate the animal's position in the equine family, we have a brood of words, such as cavalry, cavalcade, cavalier, and so forth, which are associated with war, pomp, pageantry, gallantry, and other affairs of men in which proudly they exploit and exhibit themselves to win fame and to receive the admiration of the less-favored of their kind; and "the man on horseback" has, upon more than one occasion, been a portentous figure in history.

Furthermore, men, in spite of their lordship over all of the other creatures of the earth, and therefore, as it would seem, at some expense to human vanity, have conferred upon certain of their fellows a characterization based upon the martial traits of the horse. So we have the poitical "war-horse," a politician rather than a statesman, who sticks to his party be it right or wrong, is fond of proclaiming that he has the courage of his convictions, usually is somewhat unpolished, has a ready mouth, great energy and adroitness and force as a campaigner, and with a more or less marked tendency toward unscrupulousness—some of which qualities plainly are not horse-like. From the "dark horse" of the race-course, which is one whose ability to win is not recognized, and which consequently is an unknown or unforeseen quantity in the contest, we have evolved the political "dark horse," of characteristics quite different from those of the political war-horse. He is a person not very widely known in the country at large, but known rather for good than for evil. Speaking generally, the note of the dark horse is respectability verging on colorlessness; and he is therefore a negatively "available" man upon whom to fall back when able and distinguished, but dangerous, favorites have proved impossible as candidates.

It is difficult to analyze man's love for the horse and for the dog. He becomes attached to other animals, but never would he think of dignifying his feeling for any, save these two, with the term "love." Men learn to love their horses and their dogs, but not by reason of the closeness of mere association, for oftentimes they are associated as closely with other animals as with these. It is true that they have greater intelligence than any others, but there are some that approach them in understanding, yet they are rejected. Man does not receive any other kind of animal into a place in his affections, nor does he elevate any other so nearly to his own plane, as he does the horse and the dog. Probably all this is due to the fact that in these two creatures is found an inherent higher nobility than is possessed by the others; such, as to the horse, as that which is implied in the following fugitive apostrophe which every lover of that noble animal will appreciate and enjoy:

"Here's to that bundle of sentient nerves, with the heart of a woman, the eye of a gazelle, the courage of a gladiator, the docility of a slave, the proud carriage of a king, and the blind obedience of a soldier; the companion of the desert plain; that turns the moist furrows in the spring that all the world may have abundant harvest, and that affords the sport of kings; that with blazing eye and distended nostrils lead our great generals through carnage to renown; whose blood forms one of the ingredients that make the ink with which all history is written; and that finally, in black trappings, draws the humblest of us to the sodded threshold of eternity."

Jesse Moroni Smith.

The early settlement of Utah presents one of the most interesting pages in Western history. Performed under circumstances wholly unique, the remarkable feat will retain a place as one of the memorable steps in peopling a mighty empire. The little band of 143 determined men that set out from the Missouri River in the early summer of 1847, preceded by two years the California gold-hunters. The only trails across the plains were those dimly marked out by the fur-traders of the Rocky Mountains, and it is doubtful whether the point of destination was clearly known to the first Mormon settlers.

The route westward lay for more than 1,000 miles up the valley of the Platte River, over South Pass and down the mountain slopes to the interior basin in which reposes great Salt Lake, a body of water whose shores had been trodden only by a few Government explorers and adventurous spirits among the hunters and trappers. It was a thoroughly wild, unsettled country, the home of half-starved tribes of Indians. Even the plants most in evidence were the sage brush and greasewood.

Surely here was one of the most uninviting spots in the world in which to found a colony.

The only white man in the West who claimed to know anything definite about Salt Lake Valley was James Bridger, the trapper and frontiersman, whose home was at Fort Bridger on the Green River, later a famous stopping place on the Overland Trail.

"I will give $1,000," said the grizzled mountaineer to the strange company that appeared before him, "for every bushel of wheat that is raised in the Valley of Salt Lake."

The sturdy immigrants did not falter. Painfully they dragged their weary feet through sandy deserts and along the base of frowning granite mountains, and finally, as they emerged from Emigration Cañon, they looked down upon a scene that, during the last fifty years, by the aid of genius, perseverance, and energy, has become one of the most beautiful spots of the globe.

On October 3, 1847, Salt Lake City was staked out, the Stars and Stripes were unfurled from Ensign Peak, and log cabins began to dot the base of the Wasatch range. These cabins were the precursors of thousands of homes scattered in the valleys of Utah to-day, and indicated that the settlers had come to stay.

As was pointed out by Hon. George Q. Cannon in an interesting historic address before the National Live Stock Association, at its meeting in Salt Lake City in 1901, the first years of the Mormon settlement were filled with hardship and suffering. A succession of dry seasons had apparently taken all the moisture out of the soil, and it was necessary to apply water artificially before the ground could be plowed. This, according to Mr. Cannon, was the first irrigation for agricultural purposes ever attempted by Anglo-Saxons in America, and it saved the colony. A visitation of black crickets threatened total destruction of the crops, but at the critical hour a great flock of sea gulls swooped down and the crickets yielded to their fate. The gull has since held a place in the breast of every true Mormon as sacred as that of the ibis in the heart of the ancient Egyptian. Bands of pioneers returned east to assist their friends and new-comers to the home that was being built far out in the mountains, and a spirit of helpfulness, unselfishness, and brotherly kindness was developed, which remains to this day as a prominent trait in the people of Utah.

Salt Lake City when established was a halfway station between the Missouri River and Pacific Coast, and the settlement became so strong that as many as 500 wagons, each drawn by four yoke of oxen, were sent to the Missouri River in a single season to convey immigrants to Utah. These wagons also carried provisions for the immigrants on their road to Salt Lake.

The settlement of Utah was accomplished amidst tremendous difficulties, such as history indicates none but men of most indomitable will could have withstood. Three months removed from the only base of supplies, frequently threatened with starvation, the road beset by thieving and warlike Indians, and even the elements of nature in seeming opposition, the story as related by pioneers is almost past comprehension. But these men, principally farmers and accustomed to outdoor life, were obedient to the voice of leaders who were daily stirred to renewed energy by the example of Brigham Young. Whatever the opinion of the reader as to the religious doctrine of this leader of the Morman church, he will be recognized as one of the most striking personalities of modern times—a man whose convictions impressed themselves upon tens of thousands with whom he came in contact and influenced their whole course of life. He is recognized as an organizer with few equals in any country, and the principles of industry and economy which he instilled into his followers, have made of Utah one of the most prosperous States, in proportion to population, to be found in the Union.

Among the pioneers of Utah was Elias Smith, father of Jesse M. Smith. Judge Smith, for thirty-two years upon the bench of the probate court of the Territory—one of its most honorable positions—was a cousin of Joseph Smith, founder of the church. His ancestors were Puritans, of Massachusetts. He himself was born in Royalton, Vermont. Robert Smith, the progenitor of the family in the male line, was a native of England, and came to America in 1636, settling at Popsfield, Massachusetts. Elias Smith crossed the plains to Utah in 1851, and the following year was appointed to the bench. His wife was also of New England parentage. One of her ancestors was Captain Phillips, a prominent character. Her mother was Rebecca Olin, of the New England Olin family, born at Tunbridge, Vermont. Judge Smith was a man of good educational qualifications, a writer and a speaker who always commanded thoughtful attention, and his judicial fairness gave him wide recognition throughout the Territory. He died June 24, 1888.

Jesse M. Smith was born in Salt Lake City, November 21, 1858, and is now in middle life. He is known as one of the leading live-stock men of Utah. Gifted in an unusual degree with the power of attracting others to him, Mr. Smith is one of the most welcome delegates to conventions of live-stock men, and occupies some of the most important positions in their power to bestow. He was one of the founders of the National Live Stock Association, and is Executive Committeeman of that organization for the State of Utah. He is president of the Associated Wool Growers' Company, one of the practical business organizations of the West, which eliminates the middleman by selling the wool of its customers directly to the mills; president of the Utah Wool Growers' Association; an active worker of the church, and a leader in politics in the Republican party in Utah, who never seeks any office for himself, but allows nobody to excel him in enthusiasm for his friends. Mr. Smith is of the type of men who accomplish their objects by a personal magnetism that seems to be inborn in the individual, although in some instances, as in the case of President McKinley, it did not appear in full measure until the later years of life. It conveys the impression of honesty and sincerity—elements that cannot well be assumed, and that are vastly more effective in the long run than all the excitement of the turbulent assembly. Such men are the real upbuilders of society; the men who are instinctively selected as arbiters; the men who add dignity to human nature, and recall the beautiful words of Emerson: "My hope for the human race is as bright as the morning star; for a glory is coming to man such as the most inspired tongue of prophet and of poet has never been able to describe."

The estimable qualities possessed by Mr. Smith are inherited from ancestors that firmly advocated following the dictates of the conscience, and his education in a developing country has prepared him to discharge important responsibilities. From the first he recognized the work that could be performed by a great National Association of live-stock interests, and in January, 1898, when the first meeting of the National Live Stock Association was held in Denver, Colorado, he was named as a member of the committee on constitution and by-laws. Other members of the committee were: A. B. Robertson, of Texas; G. W. Mellville, of Kansas; D. N. Stickney, of Wyoming; H. A. Jastro, of California; J. M. Holt, of Montana; J. D. Wood, of Idaho; and John W. Springer, of Colorado, as chairman *ex officio*. One of the most important questions at the organization of the association was the basis of representation between sheep and cattle men. At that time the feeling between the two branches of the industry ran high, and on the range frequent collisions resulted in deadly encounters and loss of property. It was a difficult question to settle, but Mr. Smith took the stand at the outset that sheepmen and cattlemen should meet, and could meet, upon an absolutely equal footing. He took the stand that all live stock should be equally assessed for support of the association, and the basis of representation should be the same for cattle and sheep men. The basis he advocated was twenty-five cents per 1,000 head of cattle, sheep, or hogs. His argument prevailed that cattlemen ought not to complain if sheep-raisers were willing to pay the same assessment for sheep as was required for cattle, and from that day to the present the basis has remained practically unchanged. When an attempt was made at the convention of the National Association in Chicago to change the basis, Mr. Smith came to the front, and the vote was overwhelmingly in favor of the established rule.

Mr. Smith was educated in the common schools of Utah, but at fourteen years of age was taken into the office of his father, where he learned to meet the public. An irresistible inclination for out-door life led him to propose a change in the programme, and finally his father fitted him out with a wagon and team, and the boy of fifteen was located south of the city as a farmer upon a body of land belonging to his father, and which required many months of hard grubbing to prepare for the plow. He continued farming and building irrigating canals until he was sent by the church upon a mission to the southern States. At the close of two years he returned home, and resumed operations as a farmer. It is his experience that the "Mission" is one of the most important steps in the education of young men of the Mormon Church; it widens their horizon and teaches them self-reliance. The church constantly has 2,000 self-supporting missionaries in the field. Of recent years the United States is the principal theater, although missions are maintained in every important country of the world, except China.

Mr. Smith has taken great interest in the construction of irrigating canals in Utah, and is thoroughly informed as to the possibilities of irrigation in the semi-arid regions. As he grew older he assumed charge of the farming and stock-raising interests of the family, and his father placed the entire responsibility upon him.

In 1880 Mr. Smith was marrried to Miss Harriet Emily Smith, daughter of John S. Smith, an English farmer and stockman, who settled in Utah. No children have been born of the union. The home of Mr. and Mrs. Smith, at Layton, twenty-three miles north of Salt Lake City, is one of the happy homes of the Rocky Mountains, and is a favorite gathering place of friends and neighbors, extending over a wide area.

One of the observations of Mr. Smith is that the water for irrigating purposes performs much greater service than formerly. "When settlements were first made along the streams," said he, "the settlers discouraged others from locating on the same streams, fearing that it could not be possible to supply irrigating water for any large number of farmers. Gradually canals were built, new fields were brought into cultivation, the irrigated area was widened, and to-day hundreds of families are supported where originally it was thought not more than half a dozen families could live. The same development has been observed in other parts of the State, and labor and ingenuity have accomplished wonders in agriculture. Dry farming has given very satisfactory results in many localities, and promises good returns to those who know how to follow it. However, the main resource of agriculture in Utah is in storage reservoirs. Several years ago we built a reservoir in Weber Cañon, and it is now one of the best water-rights in the State. Government aid in the construction of reservoirs will work wonders in Utah. Application of water upon this soil easily produces twenty to twenty-five tons of sugar beets to the acre, for which there is a market at $4.50 a ton; sixty to one hundred barrels of barley, and $100 to $200 an acre in tomatoes. In the early days of Utah, President Young urged settlers to occupy small farms of ten to forty acres, as he foresaw the good effects of irrigation. Time has shown that his estimates were correct, and the sugar beet factories and canning factories furnish an outlet for farming produce that surpasses the most glowing prophesies of twenty-five years ago. The valleys will produce as fine fruit as is raised in the West, and we are each year becoming more independent of the rest of the world on account of the variety and extent of our products. One of my neighbors last fall sold 9,000 bushels of apples at $1.00 to $1.50 a bushel, which he raised in an orchard that is only irrigated moderately in the winter.

"Population," continued Mr. Smith, "is the principal need of Utah. I can remember the time when the Territory had only 20,000 people; now Utah has a population of 300,000. When I was born, Salt Lake City had a population of 8,000 or 10,000; now it is a city of 60,000, and is known as one of the most delightful residence spots in America. The tourist travel increases wonderfully, and we invite all the world to come and see what has been accomplished here in half a century. While there is a great deal of intolerance and ignorance in the world, the movement is upward, and anyone who will take the time to investigate will find that as a rule the Mormon people are the broadest minded people in the world.

"There is no young man in the United States to-day who has not better opportunities than his father, if he will take advantage of them. Facilities are such that a young man may take up any pursuit he likes and make a success of it. A reasonable degree of industry and intelligent application is all that is necessary. The opportunities in the West are marvelous when we think of them, and a mighty field for American enterprise and trade is being opened in the Orient. The products of the West will in a few years be going across the Pacific Ocean instead of to the East. It is not necessary for Americans to go to New Zealand or Australia to find patterns to follow. Our own country is so far ahead of any of these countries that there is no comparison. The American people have the intellect to meet and settle every obstacle that arises and will do it right. What we should encourage in the West is the movement to the thinly settled territory of industrious farmers and artisans. We need factories, woolen mills, iron and steel mills, and establishments for working up the raw material.

"As a mining country, it is doubtful whether there is a richer one in the world than Utah. Our metalliferous product during the first six months of 1904 amounted to $17,000,000, and we have some of the greatest mines in existence; yet the mining territory is only skimmed. In gold, silver, lead, copper, coal, iron, asphalt, and gilsonite, we have untold millions, and large capital is being interested in their development.

"Salt Lake City," said Mr. Smith, "is probably destined to outstrip Denver as a great center of the mountain regions. It has a larger area to draw from, reaching into Wyoming, Utah, Idaho, and Nevada, and its climate is a never-failing source of gratification to people who take up their residence in the city. The resources of the State extend all the way from tropical fruits and cotton in the south, to wheat and mountains of coal in the other localities, and the railway facilities are expanding in a gratifying degree, as the riches of Utah become better known."

Mr. Smith has observed the gradual reduction of the public range with a philosophical eye, and has been an advocate of peaceable methods of settling all disputes between cattle and sheep men. He says the West has been built up by liberal and just land laws, and *bona fide* settlers have been given an opportunity to acquire homes, making the country what it is to-day. He is in favor of management of the public land in such a way that it will not interfere with settlement. "Utah, with an area of 87,000 square miles, including 53,000,000 acres," said he, "now has only one per cent of its land under cultivation. The simple statement is sufficient to attract the attention of any man who is inclined to be a farmer and live-stock raiser. We can truthfully say that the advantages here can hardly be duplicated, and every right-minded citizen who takes up his home in Utah will receive a hearty welcome."

As an advocate of improvement of live-stock breeds, Mr. Smith has made liberal expenditures, and is especially active in introducing the best types of Merino and Cotswold sheep upon the mountain ranges. He declares that Utah is producing some of the finest sheep and cattle in the world, and the general trend is in the direction of higher grades. The mission of the United States, according to Mr. Smith, is to leaven the world, and he prophesies that in time "all differences and prejudices will vanish and all men will be united in a universal brotherhood."

The Ass and the Mule.

Asinine Unpopularity in the United States.—Specific Origin and General Characteristics of the Ass.—Its Strange Associations with Some of Man's Conceptions.—Antiquity of Its Domestication.—Living Wild Species.—Neglect of the Ass Among Western Nations.—A Favorite in the Far East.—Introduction Into the United States.—Its Use in Some of Our Western States.—The Mule a Pre-Historic Creature.—Antiquity of Its Production.—Its Place in Traditions and in History.—Methods of Its Breeding.—Its Characteristics and Usefulness.—Mule-Breeding in Europe, in Asia, and in South America.—Great Development of the Animal in the United States.

The proud horse's humble relative, the ass, has been a dweller in parts of the United States that were settled by English-speaking people, for upward of 100 years, but has not succeeded in winning great popularity anywhere within these limits; and were it not for the important service the creature renders in the production of the more animated, and also the generally more useful, mule, it would be a very scarce animal in the States of the Union. Anglo-Saxon people everywhere have declined to receive the ass with favor; and the beast seems to be conspicuously out of place in our country, and to be conscious that it is so—that our ways are not its ways, and that it has no proper part in the busy, hurried life that surges around it. The only division of the vast domain of the United States in which it finds tolerably congenial conditions is New Mexico, that sunny, easy-going "land of pretty soon," the Mexican people of which take kindly and understandingly to the donkey, while their views of life and the character of the country combine to afford it environment that is, in most respects, comparatively agreeable. Its Mexican masters there seldom are in a hurry, rarely have much to do, and never do anything to-day that possibly can be put off until to-morrow; and there it has time and quiet and sympathetic surroundings in which to dream of the traditions of its race, and to meditate upon the mutations of asinine fortunes that have transplanted it so far from the Old World lands of its ancestors.

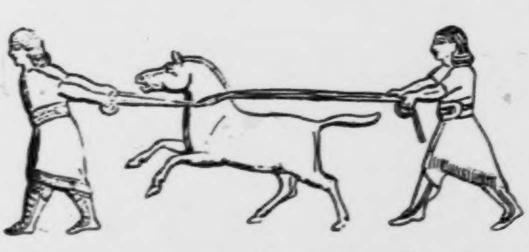
Equus asinus is the lowliest member of the horse family, and seems never to have been indigenous to America. Evidently the divergence from the horse that resulted in the ass type began soon after the appearance of the true horse late in the Pliocene period of the Tertiary Era, for the remains of the ass, proper, and also of some others that are supposed to have been of the dziggetai variety, have not been found in earlier than Quaternary deposits, and in these only in the Old World.

The chief characteristics of the ass (or donkey, or burro) that distinguish it and set it apart from the horse, are inferiority in size, relatively larger head, ears as grotesquely large as those of its namesake—the jack rabbit, the shortness and stiffness of its pastern joits, its small round solid upright hoofs, the absence of warts from its hind-legs, and the dark, cross-shaped figure in its hair along the spine and upon the shoulders. It further differs from the horse in having upon its tail a growth of rather short hair that forms a tuft at the extremity, while that appendage is naked or nearly so at and near its union with the body. While there are some pure-white asses, the usual colorings of the animal are gray, mouse-color, or black, the coat being rougher and more shaggy than that of the horse. When the color tends to bay, dun, or chestnut—the horse colors—the ass betrays indications of deterioration. Its dentition conforms to that of the horse, and, as with that animal, the age of an ass can approximately be determined by marks in and upon the teeth and by the attrition of the latter. Furthermore, from causes not understood, this animal is immune from certain of the diseases that afflict the horse, and, generally speaking, is less subject to diseases of any kind.

The singular cross-like figure that the ass bears upon its back and shoulders is formed by a longitudinal dark stripe along the course of the spine and a transverse bar across the shoulders. This figure is one of the characteristics that indicate the animal's family connection with the untamable members of its race, the zebra and the quagga, which are yet more conspicuously striped, and of the character and disposition of which the ass possesses many traits.

Commonly the male ass is called a "jack," and less frequently the female is termed a "jenny." The male is capable of propagation at the age of two years, and the female somewhat earlier. The latter carries her foal eleven months, dropping it in the beginning of the twelfth, but rarely producing more than one young at a birth; and, contrary to what might be expected from her apparent dullness and listlessness, the mother is extremely fond of her offspring. Her milk, containing more sugar and less caseine than that of the cow, closely resembles woman's milk, and long has been valued as a nutritious food for human invalids whose digestive organs are weak.

From the dawn of history—and for how much longer we have no means of judging—the ass has been in the service of man, and that it almost uniformly has been a hard service, we have evidence in the creature's pitiable air of hopeless despondency that would seem to have become a fixed part of its nature. It appears to have all the spirit with which it originally may have been endowed broken and dissipated; yet, occasionally there is an eruption of vigorous protest from it against the indignities and wrongs that are heaped upon it, and that so have been through all the ages of its captivity.

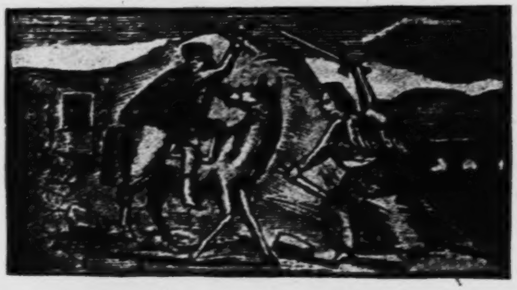


Chaldean Wild Ass taken with a Rope—Showing that Expert Use of the Rope was known to these "Old-timers."
(From Rawlinson's "Ancient Monarchies.")

The strange association it had with many ancient religious beliefs, and which is in a measure continued in the constitutions of those of the present time, should, it would seem, have guaranteed to it more considerate treatment than it has received. Once, as mentioned in an earlier section, it was an object of worship, and otherwise it has a further peculiar identification with many conceptions and events in theological history. This may have been due in part to the cross-like figure that appears in the hair of its back and shoulders, and certainly it is partly due to concepts arising from its remarkable powers of procreation. As to the first, the cross has been a mysterious sacred emblem from the earliest times of which we have any knowledge; and as to the second, the exceptional physical development of the male ass, and the unusual potency of the species in the mystery of the reproduction of life, are known to have been held as of special significance by ancient oriental peoples, and also to have given rise among them to beliefs and practices, consideration of which here would be out of place.

The earliest historical knowledge that we have of this interesting animal is derived, as heretofore indicated, from Egyptian records dating far back in the period of the old empire, and which make it appear as having been, even in that remote time, long in domestication in that country; and the next earliest has come to us from the code of the Babylonian King Hammurabi. In both divisions of our Bible there are many references to it, as the reader readily will recall. The first is in Genesis, where we are told of Abraham's preparations to depart for the land of Moriah, there to sacrifice his son; and thereafter they are frequent, and in many instances imply that the ass was esteemed above other animals, from different motives and for so-called higher reasons. What has been presented to us as the most definite prophecy of the coming of a messiah is that attributed to Zechariah, in which it is said that the king cometh riding upon an ass, and upon a colt the foal of an ass; and in the gospels we are told that this came to pass.

But the most famous individual of the asinine species, and perhaps the most famous of all quadrupeds that have lived upon the earth, was the patient beast that Balaam rode when he went forth in response to Balak's appeal for his curse upon the invading host of Israel. Gifted with discernment, speech, and a logical mind, this remarkable creature acquitted itself admirably in its memorable debate with its owner and rider. Upon another historic occasion the jaw-bone of a donkey proved to be a most deadly weapon; for Samson, when beset by a horde of ribald Philistines, "found a new jaw-bone of an ass, and put forth his hand, and took it, and slew a thousand men therewith. And Samson said, With the jaw-bone of an ass, heaps upon heaps, with the jaw-bone of an ass have I slain a thousand men."



Balaam's Ass and the Angel.
(*From a "Teutsch Chumesh"—Talmud.*)
This is a very old pictorial conception of the incident.

Among naturalists opinion is divided as to the part of the world in which the ass first was domesticated, and, as heretofore mentioned, some are of the belief that it preceded the horse in captivity. Some also insist that its domestication must have occurred among the Aryans long before these people dispersed from west-central Asia; while others, as we have told, point to the immense antiquity of its known domestication in Egypt as strongly indicating that its servitude to man began in northern Africa, and also to the close resemblance that the modern animal bears to the still-existing wild ass of Abyssinia—a similarity which they allege to be greater than to any other known species. But whenever and wherever its domestication may have begun, it was in service in northern Africa and in western Asia an unknown length of time before it appeared in Europe. According to Aristotle it was not known in Thrace in his day (384–322 B. C.), but we can not doubt that it was in use elsewhere in southern Europe from a far earlier period; and while there is no definite historical record of its introduction, it is known that an old Roman superstition made it a bad omen to meet an ass. Early in the Christian Era the animal had become rather generally distributed over southern and western Europe, and there is some evidence of its presence in England in the reign of the Anglo-Saxon King Ethelred (866–871), but it was not utilized to any noteworthy extent in that country until about 300 years ago. In several parts of Germany during the middle ages the ass was made the symbol of St. Thomas, the doubting apostle; and at the somewhat primitive German seats of learning in that period the boy who was the last to enter the school on St. Thomas' Day was called the "Ass Thomas."

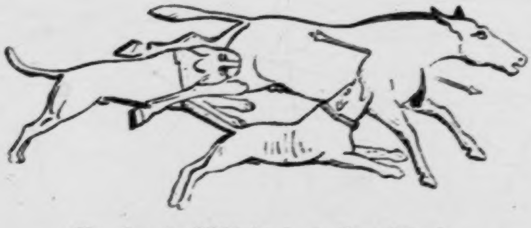
The wild ass has been known from the beginning of recorded human history, and its wildness long has been proverbial, as well as synonymous with unrestrained action. In the enumeration of mighty works which the Lord is represented to have addressed to the much-afflicted Job, we have the following:

"Who hath sent out the wild ass free? or who hath loosed the bands of the wild ass?

"Whose house I have made the wilderness, and the barren land his dwellings.

"He scorneth the multitude of the city, neither regardeth he the crying of the driver.

"The range of the mountains is his pasture, and he searcheth after every green thing."



Hunting the Wild Ass in Ancient Assyria.
(*From Rawlinson's "Ancient Monarchies."*)

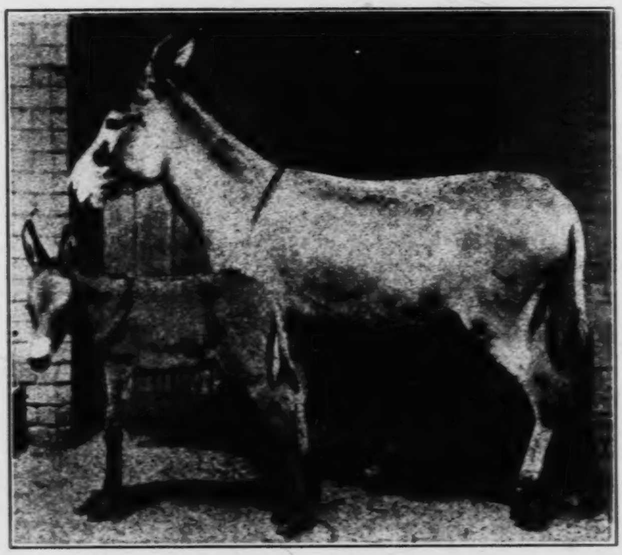
In the time of Abraham, as well as during the heroic and historic ages of Greece, the species of wild ass known as the onager, and to which reference has been made in a preceding section, abounded in the mountains of Syria and of Asia Minor, and throughout Persia; and in the last-named country, in Armenia, in the region of the sources of the Tigris and the Euphrates Rivers, and in northwestern India, it exists in a state of nature at the present time. These asses were mentioned by Xenophon (fifth century B. C.) as existing in great numbers in parts of Mesopotamia when he passed through that region in command of the famous Retreat of the Ten Thousand, and says that they were eagerly pursued by some of his soldiers, and that they were "so fleet that the horsemen could take them only by dividing themselves into relays, and succeeding one another in the chase." They are still in possession of this quality of extraordinary fleetness, and long have been for the Persian monarchs the favorite objects of the chase. Their flesh is eaten by the Persians and by other people of that region, and by them is esteemed the finest of venison.

Syrian Hemippus.
(From the "Popular Science Monthly," September, 1890.)

In present zöological classification the species of ass are made to appear more numerous than the differences would seem to warrant, and it is not unlikely that one or more of the forms usually considered as distinct will have to be classed as mere variations from the specific type. As stated in a preceding section, three generally recognized species roam the wilds of southwestern and of west-central Asia at this time: the Syrian ass (*Equus hemippus*), the onager (*Equus onager*), above referred to, and the hemione or dziggetai (*Equus hemionus*), which inhabits the high table-lands of Thibet at elevations of 15,000 feet and upward. The specific names of two are misleading, as "hemippus" literally means "half horse," and "hemionus" "half ass," thus implying that the animals are mules, while no such thing as a male mule capable of procreation ever has been known; yet, as remarked heretofore, these evidently are the same kind of creatures that were termed by the ancient peoples of the countries they inhabit, "fertile mules." *Onager*, the specific Latin name of the third species, is merely a corruption of two Greek words, meaning, respectively, "ass" and "wild," which Xenophon applied to the fleet animals he and his army encountered in Mesopotamia. The general conclusion is that these were identical with the modern Persian and Indian onager, although a few authorities suggest that they may as well have come from the dziggetai species. A medieval military engine by which large stones were thrown was called an onager—probably in recognition of the ass' skill in using its heels in combat.

The Syrian ass is of somewhat less specific importance than the other two, and in spite of its "half-horse" Latin specific name is a true ass, and more nearly resembles the domesticated species. The dziggetai is larger than it or the onager, and is the most horse-like in appearance. Its ears are much shorter and its legs are longer, relatively, than those of the domesticated animal, but nevertheless it is an ass, and does not, as "hemionus" implies, possess half of the characteristics and qualities of the horse. The onager also differs from the domesticated species in having shorter and more rounded ears, in the greater length and finer form of its limbs, and in its somewhat larger size.

All of these animals roam in rather small herds under acknowledged leaders, and are so exceedingly shy and fleet of foot that it is very difficult to get within rifle-range of them. But notwithstanding their timidity and natural wildness, the young are sometimes caught and in a measure tamed, which indicates that the domestication of the ass was not an unduly troublesome proposition. All of them have the dark stripe along the backbone, but the transverse streak across the shoulders does not appear to be constant. Their preferred food consists of saline or bitter and milky plants, but when necessary they will eat almost anything in the form of vegetation; and they are also fond of drinking salty or brackish water. They are hunted for the sake of their flesh, which, as already mentioned, is regarded as a great delicacy by the native people of the regions they inhabit, and for their skins, from which the peculiar and valuable kind of leather known as shagreen (from the Turkish "*sagri*") is made.



Captive Abyssinian Wild Ass and Foal.
(*From a photograph.*)

The Ethiopian ass (*Asinus tæniopus*), the only wild species in Africa, is found in Abyssinia, and, unlike its Asiatic relatives, has the long, pointed ears, and the harsh bray of the domesticated kind. It has the cross-figure on its back and shoulders, and is said to have cross streaks on its legs, which, also are seen occasionally upon the legs of the tame breeds. It appears to be the predominating opinion among zöologists that the domesticated ass is either a descendant from some species now extinct, or is to be identified with this Abyssinian animal, which it very closely resembles; the stripes which are seen more or less frequently on the legs of the tame variety being regarded as instances of reversion to the ancestral type.

The wild asses that roam the desert plains lying between the Red Sea and the Indus River are considered collectively as a link between those of Asia and those of Ethiopia.

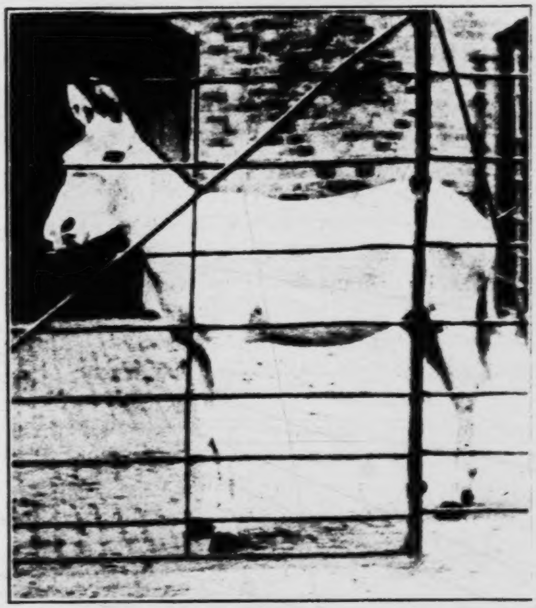
The zebra members of the *Equus* family are much nearer to the ass than to the horse. Two species, the quagga and the dauw, dwell upon the plains of South Africa; of the two others, which are zebras, proper, one frequents the mountainous districts of South Africa, and the other the lake region of central Africa.

The author of the Book of Job understood well the habits and character of the wild ass. Truly its house is in the wilderness and the barren land is its dwelling. It scorneth the multitude of the city, and regardeth not the crying of the driver; and the range of the mountains is its pasture, and it searcheth out and eateth nearly every sort of green thing. Our ancient author was far better acquainted with the animal than was the modern English writer, De Quincey, who made the mistake of saying, "the wild ass is one of the few animals which has the reputation of never flying from an enemy." Its legs are its chief dependence in times of danger, and it, like the wild horse, acts instantly upon the proposition that he who runs away may live to fight another day, and therefore will stand and fight only when it can not run away.

Several of the habits and traits of the domesticated ass, such as its aversion to entering water—an antipathy it shares with the camel, and which, as elsewhere mentioned, is to a less extent entertained by the horse and some other domesticated animals—its fondness for rolling upon the ground, its indiscriminating tastes in feeding, and its sureness of foot in difficult places, afford evidence that the wild stock from which it sprang did not have its habitat in well-watered lowlands where vegetation was plentiful, and where there was no climbing to be done.

The ass' reputation for stupidity and lack of sensitiveness is, to a great extent, undeserved. It has been treated with scorn and contempt by its human masters for so long a time that it is no wonder that its feelings have been blunted and its spirit broken; even the ancient Egyptian peasantry, though most usefully using it as a daily drudge, bitterly hated it, and symbolized a densely ignorant and stupid person by its head and ears. Yet, while its raucous and discordant bray, and certain of its characteristics, are prejudicial to it, there are zoölogists who say that naturally it is as intelligent as the spirited and agreeable horse, and both sexes are susceptible of strong attachments to their masters. The horse, which appears to have a lively consciousness of its position as the aristocrat among our domestic animals, cordially shares the common prejudice against the ass, and also the disposition of man to oppress and crush the lowlier of his fellow-creatures. Horses refuse to associate with asses, and when the two come into contact a combat is inevitable, often is serious, and always ends in the discomfiture of the long-eared forces.

There is no doubt that with general careful breeding, nutritious feeding, grooming, stabling, and other considerate attention such as the horse receives almost everywhere, would make the ass a very worthy companion of the horse as a servant to man, and would improve it approximately as much as the other domestic animals have been improved. It generally has been an object of neglect and ill treatment, and therefore has sunk to the apparently dull and certainly obstinate creature that we are accustomed to see; and this especially is applicable to its experience in European countries where, commonly, it has, for many centuries, been regarded only as the drudge of the poor. That its diminutive size in cold countries is due as much to neglect, insufficient provender, and other consequences of man's indifference to its welfare, as to rigors of climate, seems proved by the fact that in northern India, where the creature long has been used by the lowest and most ignorant of castes, it does not attain a greater height than that of a Newfoundland dog. That the qualities of the animal can be improved and its size developed by careful selection of the finer individuals for breeding, and by humane treatment, has been demonstrated in what has been done in the production of jacks intended only for mule-breeding. But this has not been extended to the improvement of the species for purposes of general utility among the people of the western nations.

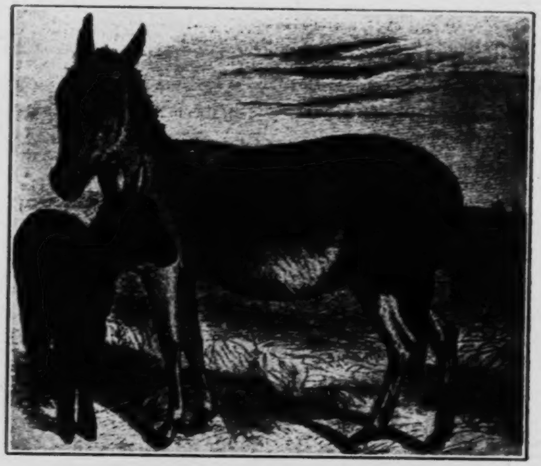


A Captive Onager.
(*From Hayes' "Points of the Horse."*)

Among the nations of southwestern Asia the ass has come nearer to receiving the attention that is bestowed in our country upon the horse, than in any other part of the world; and it is there that it is to be seen in its best condition. The Arabs and Persians are scrupulous as to asinine pedigrees, and by careful selection and in breeding have made much improvement in the stock. In Syria four breeds have been well developed: a light and graceful animal, with an agreeable gait, used by women; another, reserved exclusively for saddle use by men; a stouter animal than these is employed in plowing and for other draft purposes; the fourth being the large, burden-bearing "Damascus ass," with a peculiarly long body and very large ears. In Palestine, the rocky condition of the soil and the mountainous character of the country have favored the employment of this hard-hoofed, sure-footed beast as much as they discouraged that of the delicate, fine-limbed horses of Syria and of Arabia; and therefore in the Palestinian asses excellent qualities have been developed. At Bassora in Mesopotamia there is a pure-white breed, remarkable for excellence, and which is said to have been in existence since about 700 B. C. In southern Europe, especially in Spain, Italy, and Malta, ass-breeding receives much attention, but almost wholly with a view to mule-raising, and very high prices are received for fine jacks. In Spain, breeding for this purpose long has been particularly cultivated, and it has been extended to several of the South American countries, especially to Peru, where mule-breeding also is an important business.

The ass is admirably adapted for a beast of burden in mountainous countries. Rather slow, but wonderfully sure-footed, and having hoofs that seem almost incapable of lameness, it is by far the safest of all animals for such work. On about one-quarter of the food required by the horse, it will carry loads under which the nobler creature would break down; and at the same time bear them over difficult and dangerous places in which the other could not keep its footing—patiently trudging along and carefully picking its way with perseverance and docility of which the horse is incapable under such circumstances.

As mentioned at the outset of this section, the ass has been in parts of the United States that were settled by English-speaking people for upward of 100 years; but the Spaniards had introduced it into the New Mexico country and into southern California at a far earlier time. It was through General Washington that it was transplanted upon our Atlantic coast. In 1787 the king of Spain sent him the present of a jack and a jenny; the jack being called the "Royal Gift." Two years later General Lafayette presented President Washington with a fine Maltese jack, which was named "Knight of Malta." In 1800 a Maltese jack had the honor of being a passenger on the United States frigate *Constitution* on her homeward voyage from her first cruise in the Mediterranean. In the meantime, however, a few other asses had been imported; and still others were brought over in the early years of the nineteenth century.



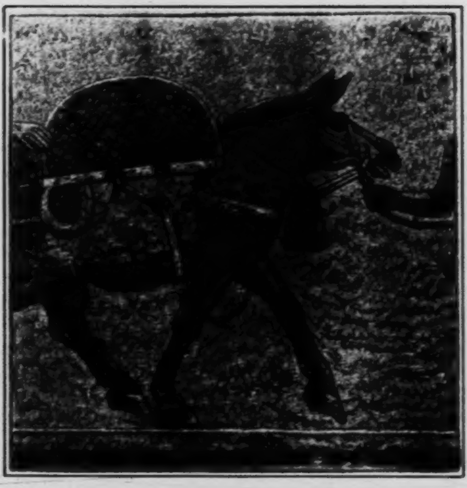
The Dziggetai, or Hemione, and Foal.
(*From Wood's "Illustrated Natural History."*)

Nevertheless, asses have failed to become popular in the United States, and are but little used except for the propagation of mules. In our mule-producing States, the principal ones of which are Kentucky, Missouri, and Kansas, jacks are bred from stock imported from the south-of-Europe, with scrupulous care, and with such success that from the average ass-height of fourteen hands, they have been raised to fifteen, and, in a few exceptional cases, even to sixteen hands.

In New Mexico, which, as we have said, is about the only part of our country where the ass tribe finds appreciable consolation, and which comes almost exclusively from the Mexican part of the population, the burro (Spanish "*borrico*," meaning "a little donkey") is the favorite. This docile little creature is also used as a pack-animal in the mountainous parts of Colorado and in those of the others of our precious-metal-producing States in the West. It not only carries all sorts of materials for the development of new mines in remote places, but is the faithful servant and companion of the lonely prospector, who spends months at a time seaching for "color" in the wilds of the mountains. It can follow its master wherever he goes, with its load of "grub," cooking utensils, and other prospecting necessities; and without it, prospecting would be a difficult, if not practically an impossible, business when long absences from bases of supplies were among the attendant conditions.

Notwithstanding its failure to win popularity among our people, the ass may point with some pride to its services in the production of that eminently useful animal, the mule, which has attained in the United States a development that has not been equalled by its kind in any other part of the world.

From very early times the mule has been stigmatized as a creature without pride of ancestry or hope of posterity, but, whatever may be the odium that attaches to this condition of its existence, in point of antiquity it is a very respectable animal, for the first of its kind appeared in pre-historic times. Two peoples known as the Mysians and the Paphlagonians emerge into the dim light of the dawn of history with the mule as one of their four-footed companions. In ancient geography "Mysia" and "Paphlagonia" were the names given to two provinces or countries joining each other in the extreme northwestern part of Asia Minor, and it is to the people of these provinces that the "invention" of the mule is attributed. Both appear in Homer's list of the allies of Priam during the Trojan war, but further than this nothing is known of the early history of the Mysians. Although these and the Paphlagonians play a very unimportant part in history, they were among the remotely ancient peoples of Asia Minor. The latter are mentioned in a far later period, by Herodotus, as having been among the "nations" reduced to subjection by Crœsus in the sixth century B. C.; and in 480 B. C. they supplied an important contingent to the army of Xerxes. The ancient Greeks and the Romans, too, held the mule in high esteem, and employed it for about the same purposes for which it is used in our own times; although many of the Romans favored it as a carriage-drawing animal.



An Assyrian Pack-mule.
(*From Ragozin's "History of the Ancients."*)

Our hybrid friend also figures conspicuously and very creditably in the Old Testament, but is ignored in the New. Singularly enough, the Hebrew words "*rekesh*" and "*yemin*," meaning respectively "dromedary" and "warm springs," both are translated "mule" in the authorized version; the Hebrew word for mule being "*pered*." The first appearance of either the singular or plural form of the word "mule" is in Genesis xxxvi:24: " * * * this was that Anah that found the mules in the wilderness, at he fed the asses of Zibeon his father." But it was the warm springs east of the Dead Sea that Anah found, and not mules; the springs being at present known as Machærus or Callirrhœ. The ancient Jewish law forbade the rearing of mules (Leviticus xix:19): " * * *Thou shalt not let thy cattle gender with a diverse kind: * * " Nevertheless, the Jews obtained mules, either by importing them or by disregarding the law; most probably by the latter course, because they were experienced breeders of live-stock. The first mention of the mule by name in the Bible pertains to the time of David, when horses had become common among the Israelites, and when asses were, of course, abundant.

"And the servants of Absalom did unto Amnon as Absalom had commanded. Then all the king's sons arose, and every man gat him up upon his mule, and fled."—II. Samuel xiii:29.

Absalom rode a mule when he passed under the tree from the branches of which he was left hanging by the head:

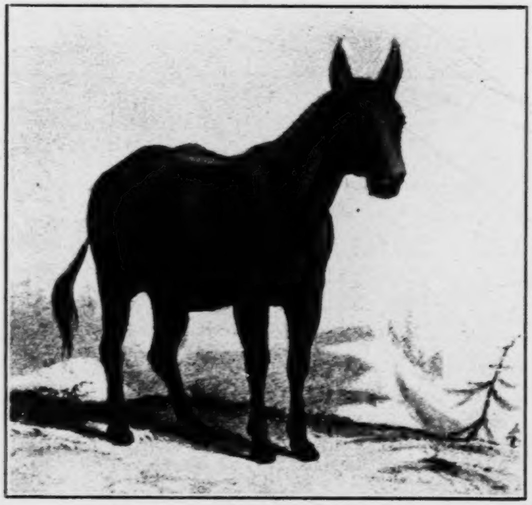
"And Absalom met the servants of David. And Absalom rode upon a mule, and the mule went under the thick boughs of a great oak, and his head caught hold of the oak, and he was taken up between the heaven and the earth; and the mule that was under him went away."—II. Samuel, xviii:9.

In I. Kings i:33, we are told that King David specifically directed that his great son and successor, Solomon, should be brought upon his mule: "The king also said unto them, Take with you the servants of your lord, and cause Solomon my son to ride upon mine own mule, and bring him down to Gihon"; and judging from the emphasis here laid upon the matter and repeated in verses 38 and 44, and from the facts that the king rode upon a mule and selected that animal to bear Solomon to be anointed king, we can see that the mule was a highly distinguished creature among the Israelites at that time. Indeed, it seems to have become a great favorite with the Jews all at once; and that it continued so for a long period we have evidence in the various references to it in the later books, to quote which, however, would be tedious. According to Ezra and Nehemiah the Jews had nearly half as many mules as horses when they returned from Babylon to Jerusalem in the sixth century B. C.

Passages in the Book of Esther show that mules were common in ancient times in the far-eastern kingdom of Elam, and one in Ezekiel tells us that they were traded in at the fairs of the Phœnician city of Tyre. But they are not, however, mentioned in the code of the Babylonian King Hammurabi, though we know that the Babylonians had them in later times, at any rate, from the statements in Ezra and in Nehemiah, referred to above.

In the foregoing we have seen that, notwithstanding its irregular method of coming into the world and its inability to perpetuate itself, the mule has a long, eventful, and very creditable history. While it is not usually regarded as warrior, it has become prominent in modern military organizations, as it was in that of King David, but for different uses; it being now the chief dependence for heavy-draft purposes. In our great Civil War it served nobly, as it did most of the pulling and hauling for both Union and Confederate armies.

The term "mule" is not infrequently applied to offspring of any two creatures of different species, and really is synonymous with "hybrid," yet in its ordinary use it is understood to mean the offspring of, or "cross" between, the equine and the asinine species. There are two kinds of such mules—the mule, proper, which is the offspring of the male ass or jack and the mare; and the hinny, which is the result of a cross between the stallion and the female ass or jenny. The mule is by far the more valuable of the two, and to its production the attention of breeders is exclusively directed. This would be the case were both of equal value, for, owing to the extreme antipathy of the stallion to the female ass, the hinny is rarely produced; so rarely, indeed, that some authorities deny its existence. However, it is an established fact that once in a while a hinny makes its appearance.



The Hinny.
(*From Jardine's "Naturalist's Library."*)

In breeding mules the selection of the male parent is restricted as far as comeliness of form is concerned, for even the most shapely of the jacks have, relative to their height and in comparison with the symmetrical figure of the horse, large heads, short necks, flat sides, low shoulders, narrow croups, thin legs and thighs, and small hoofs. Therefore, the extent to which these defects may be modified in the offspring depends very largely upon the physical characteristics of the mother-parent. The mare should have a small head, long neck, short back, round body, a full chest and a muscular croup, rather heavy legs and large thighs, and broad round hoofs. The height of either parent is of less importance, but breeders of ordinary mules usually select jacks of thirteen or fourteen hands, and mares a hand or so taller.

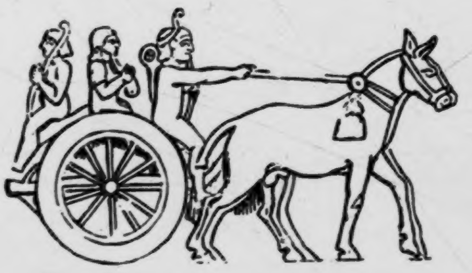
In consequence of the deep-seated aversion of the horse species to the ass, the cross between the mare and the jack is, by the former, rarely, if ever, voluntary. The jack will freely mate with the mare, but her repugnance to him is so excessive that it is doubtful whether a mule ever would be produced by her consent. Therefore, in mule-breeding she must be deceived in some way; and usually she must be blindfolded, or tied with ropes, or placed in a trevis, before the jack can even approach her. Fecundation between the horse and ass species is less certain than it is between the male and female of either of these species, for, while of four mares three as a general rule will be fecundated by the stallion, but two usually are by the jack. The period of gestation in a mare impregnated by the ass is somewhat longer than in impregnation by the stallion, covering about 375 days, and as there is a strong tendency to abortion, more care is required in mule-breeding than in the breeding of horses or asses.

The mule foal is noticeably weaker on its legs than is the young colt, and does not grow so fast. Its approach to maturity is slow, and it is of little use under four years of age. When full grown the average height is about fifteen hands, but sixteen is not rare, and in exceptional individuals still loftier heights have been attained.

Fecundation of the female mule by the jack or by the stallion sometimes, but not often, occurs, but when it does the natural term of pregnancy is seldom reached and still more rarely brings forth a living offspring. But in the case of the male mule, no instance has been recorded in which it has proved itself capable of procreation, although physically the animal appears to be perfect. Therefore the "fertile mule" of the ancients surely was something else. As far as knowledge of the rare hinny extends, that form of hybrid is likewise barren.

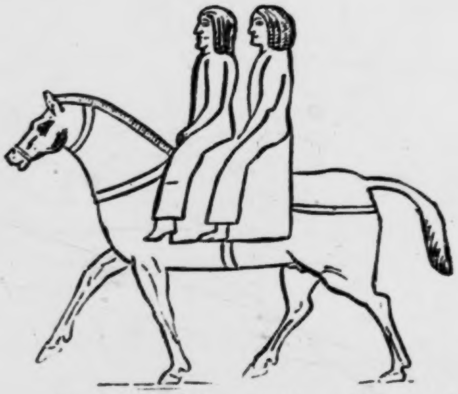
The mule inherits to an extraordinary degree the form and pecularities of its sire, which is due to the remarkable vigor of the jack, to which parent it is much nearer in physical organization as well as in appearance and disposition than it is to the mare. In every instance the mule is an ass modified by a strain of the horse, and not a horse modified by a cross with the ass. From the mare it derives size, and even if the dam be ill-shaped, this defect usually does not seriously affect the offspring. In consequence of this, although it is desirable always to breed from sound, well-formed mares, many that are unsound and defective in shape, and therefore disqualified for horse-breeding are rather successfully utilized for mule-breeding.

The hinny is considerably more horse-like than the mule. While the vigor of the female ass is very great, the horse-influence of the stallion upon the offspring is more potent than that of the mare upon the mule. The hinny is less tinctured with the blood of the ass, and in its physical organization and external apperance leans further toward the horse side of its parentage. The difference between the two hybrids is emphasized by the divergence in the character of the voice. The mule, owing to a peculiar formation of the larynx, brays, like the ass; while the hinny neighs, after the more agreeable manner of its sire.



Ancient Babylonian Cart Drawn by Mules.
(*From Houghton's "History of the Ancients."*)

In general the mule is endowed with the chief characteristics of its parents. In its short, thick head, long ears, thin legs, small narrow hoofs, short mane, tail destitute of hair near end at the root, and in the absence of warts inside the hocks, it is asinine; while in height and in body, form of neck and of croup, uniformity of coat, and in its teeth, it is equine. Its most common colors are dark, brown, and bay-brown, and a chestnut tint is sometimes apparent; but bay, or bright bay, white, and even piebald, occasionally occur. It is of long life, and is serviceable for a longer period than is the horse, often working until it is twenty years of age, frequently until it is thirty, and sometimes even until it is forty years old. It possesses the sobriety, patience, endurance, and sure-footedness of the ass, and the strength, vigor, and courage of the horse. As a beast of burden it is preferable to the horse, being far less impatient under the weight of heavy loads, while its skin is tougher and therefore less affected by chafing; although as a draft animal it is fully the equal of the horse for most purposes. It is very frugal, easily fed, and seems to be especially adapted to warm and dry countries, particularly to those that are mountainous, but does not do so well in regions that are cold and wet. It is used as a pack-animal in many parts of the world, including the arid and mountainous areas in the western section of the United States. Having an easy and steady gait, it readily traverses the worst roads or paths, and can climb or descend a steep mountain-side, or pick its steps along the edge of a precipice with almost the surety and safety of its asinine parent. It sleeps but from three to four hours in the twenty-four, its soundest slumber being toward dawn. With a full load it will walk on the level a little more than three miles and hour, the pace varying according to the character and condition of the road or trail; and it steps faster when going uphill than when going down. The male mule can carry more weight than can the female, though the latter is steadier in its work, being more docile. Male pack-mules occasionally become vicious and carry their loads badly; and then castration is sometimes resorted to to make them more tractable. Pack-mules are extensively used in our western gold-and-silver-mining States in transporting heavy materials and appliances for equipment of new mines; engines and other machinery in parts, being packed by them, as well as long and heavy timbers with one end dragging on the ground, to mines remote from railroads and to which wagon roads are things of the future.



Two Assyrian Women Riding a Mule
(*From Houghton's "History of the Ancients."*)

The mule, like the ass, enjoys an extraordinary immunity from disease. At various times when horses have suffered severely from epizootic maladies, mules and asses were entirely exempt. Nevertheless the diseases to which the asinine species is subject run their course with great rapidity; as, for example, glanders, which often continues in chronic form in the horse, is very acute in the mule and in the ass. The latter two are very liable to tetanus, and which frequently occurs in them from trifling injuries.

The principal mule-breeding countries in Europe are the south of France, Spain, Portugal, and Italy, where the animals are carefully bred, both for pack and draft purposes. In France mules are most numerously bred on the borders of the Pyrenees, and in Gascony, and in Poitou. In Spain they are largely produced, and are in general use in the Catalan provinces, in the mountainous districts of Andalusia, and in the province of Alicante; and some excellent types are bred in La Manche, and also on the slopes of the Pyrenees, where they are used chiefly as burden-carriers.

In Spain, Italy, and in some other countries of Europe, mules commonly are used to draw carriages, especially in Spain, where large and fine animals are bred for this purpose, a pair of which, in frequent instances, will cost more than a pair of the best Spanish horses.

But France is perhaps the most important mule-raising country in Europe, four centers being very generally devoted to the industry. These are Poitou, the mountainous districts of central France, the Pyrenees, and Dauphine. In Poitou mule-breeding commonly is supposed to date from the time of Philip V., when certain new breeds of horses and of asses were imported into that district and into Gascony. But there is evidence to show that as early as the tenth century the mules of Poitou were of excellent quality. The mules of the different parts of France differ between themselves in height and considerably in form. Those of Poitou are larger, powerful, and long in the body; those of Dauphine are of medium height, with a short, thick body; while the others are still lighter and smaller and very active.

For some reason that is not apparent, mules are in disfavor in Great Britain, being but seldom bred and little used there, and receiving almost no attention or appreciation.

The mules of Asia Minor, Syria, Egypt, Cyprus, and Algeria, as well as those of the district betwen the Tigris River and the Persian frontier, and in north China, are of good breeds; and in the Punjab provinces of British India, many excellent mules are produced, breeding being largely promoted by the government. But generally the mules of the Asiatic and the African countries are smaller than those of Europe and of America.

In most of the South American countries mule-raising is an important industry, and is especially so in Peru, where the breeders, profiting by the long experience of those of Spain, produce large numbers of mules for export. In Mexico a very hardy, strong, and useful smallish mule is bred from a mustang mare.

In size, form, and in general good qualities the mules bred in the United States excel those that are produced in other countries, and a large number of them annually are exported, of which many are for use by foreign armies. An account of the mule-breeding industry in our country and of the more important of the results that have been attained appears in the second volume of this work.

An Ideal Texas Cattle Ranch.

Out on the great plains of the Texas Panhandle is one of the most interesting cattle ranches of the world. Located more than twenty-five years ago, when nearly all of North and West Texas was open range, subject to "right of discovery," every essential advantage of selection was presented. The wisdom of the choice has been fully demonstrated, and it is probable that with all the experience of past years, if the country were still open and the experiment were to be again attempted for the location of a great cattle ranch, the same spot would be selected. Favored by climate, by variety and luxuriance of grasses, by natural contour of surface, by abundant supply of water from flowing streams and springs and by access to railway, here is to be seen an ideal cattle range.

RICHARD WALSH.

Any intelligent live-stock man of the Southwest can readily name the location.

It is the Adair Ranch.

The headquarters of this great ranch are at Palo Duro, Armstrong County, twenty-two miles from the Fort Worth & Denver City Railway. The visitor may travel for many miles from headquarters in the direction of the four points of the compass, and yet be almost constantly within the enclosure of the Adair Ranch. As the crow flies, it is sixty miles from the eastern to the western line of this magnificent domain.

The ranch covers an area of more than 800,000 acres. If collected into a compact body, it would form a square of forty miles upon each side. To the mind of almost any person but a live-stock man, accustomed to traveling on horseback over great areas, these figures convey little meaning; they are so large that few can comprehend them. Imagine two towns or two spots with which you are acquainted, ten miles apart, and multiply the distance by four; then you may comprehend the distance from one line of fence to the other. An experienced fence-rider might accomplish the journey around the ranch in a week, but it is doubtful. Here are gently rising hills, open and enclosed valleys, immense prairies that appear a boundless level, extending to the distant horizon, and anon, great rifts in the surface that seem at first glance to have been caused in ages long past, by mighty convulsions of Nature.

It is the live-stock man's paradise.

This immense area is divided by wire fences into pastures, some of them containing 200,000 acres—the winter range and the summer range. A stranger from the city might wander in one of these great pastures until he dropped to the ground from sheer exhaustion and never meet a human being. The only sign of life would probably be the curious-eyed cow or steer or the lurking coyote, whose quick, shrill bark is heard in the still watches of the night.

Everything about the ranch conveys the impression of largeness. The cowboys, as they gracefully swing into their curiously wrought saddles, seem to be starting upon a long journey, and the loose horse-herd, careering over the prairie, with manes flying in the wind and tails in air, reminds one of the droves of wild mustangs that awakened the enthusiasm of Washington Irving on the plains seventy years ago. The ancestors of these mustangs probably roamed the plains of Palo Duro.

The impression of freedom is one of the novel thoughts that enters the mind of the visitor. He is treated to a new sensation. The primitive instinct reasserts itself, and he recognizes that there is a happiness in outdoor life unknown in the crowded thoroughfare. There is also an impression of order and system in the management of the property as one meets the officers and employees of the ranch. All seem personally interested in the workings, and even the "nesters"—the settlers who have located under the Four-Section Act of the Texas Legislature—are on terms of friendliness with the management, and throughout the whole region a common sentiment of brotherly feeling prevails. The "nesters" sell their products to the ranch, and the ranch gives preference in many ways—as of employment—to the "nesters."

This is one of the characteristics of the Adair Ranch.

If the same principle were applied upon all large ranches where similar conditions of land-tenure prevail, how much more happiness would there be in ranch life! In fact, how many large ranches of the South and West that have passed into oblivion, would be in existence to-day had a system of toleration and kindliness toward the land-seeker been adopted, instead of the principle of active and bitter reprisal for every presumed encroachment! Upon this rock has many a great landed property been split.

The marvel of the Adair Ranch, however—the feature that distinguishes this ranch from all other large ranches of the great plains—is the Palo Duro Cañon. When Charles Goodnight, the veteran cattleman who located the ranch, first stood upon the edge of the cañon and gazed into its depths, he was transfixed with astonishment. Winding through a beautiful valley at his feet, he beheld the shining surface of the south fork of the Red River. Scattered through the valley were groves of cedars, postoaks, mesquite and cottonwood trees, and the sides of the cañon were covered in many places with dense growths of underbrush, which to the mind of the cattleman would afford a most desirable winter forage for live stock. How to reach the bottom of the cañon was a problem that required days to solve, and finally the pioneer was obliged to take his wagon to pieces and let the different parts down by ropes in order to convey it to the bottom. At a romantic spot on the left-hand side of the cañon going up, is the location of the original winter headquarters. Here the locator lived for six months at one time without seeing the face of a single white man. The nearest settlement was Henrietta, two hundred miles distant, and the cañon was known only to the Indians, the daring rangers, or the troops of the Federal Government that occasionally passed in the region.

The scene in Palo Duro Cañon approaches in rugged and majestic grandeur the famed valleys of the interior ranges of the Rocky Mountains. Entrance to the cañon is effected only at a few places along its borders, as the bottom lies nine hundred feet below the surface of the plains, and in many places the walls are almost perpendicular, while for long distances the sides of the cañon rise in terraces, on which are wooded parks, and many level stretches. Nine miles wide at the point where the main road crosses the cañon, and rapidly narrowing to a width of one mile or less, this tremendous chasm is a lasting evidence of the mighty forces of prehistoric floods. There is no doubt that the cañon was wrought out of the sandstone and the red clay, whose brilliant color lends attractiveness to the scene, by the power of rushing waters.

The wagon road which now leads down, winds among the rocks for a distance of five miles before it reaches the bottom. Once in the cañon, it is possible for one acquainted with the spot to drive in a wheeled vehicle for many miles without any serious obstacle except the quicksands. Immense boulders hang on the sides of the cañon or have plunged far out into the valley, where they have reposed, perhaps, for centuries. Scores of beautiful meadows are crossed in the level stretches, and issuing from the rocks along the cliffs are springs of clear, cool water that made the spot celebrated far and wide among the plains tribes of Indians as a camping-place. The water in the river is strongly alkaline, but it is swallowed with avidity by horses and cattle, and in the longest and dryest summer the stream is never known to run dry.

Is it any wonder that Palo Duro Cañon is recognized by cattlemen as one of the most remarkable winter ranges Nature has ever prepared? Sixty miles of this cañon are enclosed in the Adair Ranch. Many more miles of side cañons are also available, the whole forming a unique range, fully protected from the blasts of winter, and provided with a luxuriance of natural forage not known upon the plains.

The Adair Ranch is divided into three main divisions, with a ranch-house in each division, in charge of a foreman and an assistant, whose duty it is to ride the fences and keep a watchful eye upon the cattle and the windmills. Each foreman reports at general headquarters, and assists in the round-ups and in emergencies. The operations at the ranch require two wagon outfits of ten or fifteen men each, which are upon the move for weeks at a time, live in the open air, and are available for every class of work known upon a ranch. Each man in the outfit is allowed ten horses, and the horse-herd is in charge of a man known as the wrangler, who devotes his entire time to the horses. The saddle-horses subsist wholly upon grass, but wagon horses are also given a daily allowance of grain. The men composing the outfit sleep on the ground for eight months of the year. In the winter they go into little camps, two men in a camp, in the cañon. Their duty then is to ride the cañon daily for a distance of five or six miles, pull cattle out of the bogs, and collect the weak cattle to be fed at stations in the cañon, where feed has been accumulated for that purpose. In this way the winter losses are reduced to a nominal figure. Life in the cañon is lonely, but to one accustomed to the solitude of the range the isolation presents no serious obstacle. One of the peculiarities of the ranch is that cattle drift to the cañon in the fall. After the middle of November thousands of cattle will be found walking the fences on either side of the cañon. It is a sign of approaching cold weather, and the instinct of the animal urges it to seek shelter. The gates are opened for a distance of fifty miles, and the cattle find their way into the cañon without being driven. They are equally desirous of getting out of the cañon in the spring, and incur great risks in climbing the steep sides, in their endeavors to reach the summer range.

The Ranch Home of Mrs. Adair

The Adair Ranch provides range for 30,000 cattle, and under favorable conditions of grass the number can safely be increased to 50,000. At present 35,000 cattle are on the range.

The railway shipping pens are upon the ranch itself—a feature greatly desired by live-stock men. Corrals are located at convenient points, where the most improved appliances for branding, dehorning, etc., are provided. A dipping-vat is one of the established accessories.

Two widely known herds are reared—the "J. J." herd and the "J. A." herd. The "J. J.'s" are made up of thoroughbred Herefords, and number about 3,000 head—one of the largest herds of pure bred Herefords in the United States. It is from the "J. A.'s" that the celebrated steer cattle of the Adair Ranch are produced. These cattle are kept entirely separate from the thoroughbreds, and their principal range is in an immense pasture south of the river, known as the "Tule" pasture. It is named after Tule Cañon, on the borders of which General McKenzie, in 1872, broke the power of the Comanches by putting to death 1,500 of their horses. The bones of these horses for years whitened the prairie of the Tule pasture.

Bulls from the Adair herd are to be found in all the principal States of the West and North, as well as in Canada and Mexico. The demand has been such that many of the females are used for breeding purposes by cattle-owners desirous of developing a highly desirable type of Hereford. A certain mixture of Short-horn blood for the beef herd is sought after on the Adair Ranch, and one hundred registered Short-horn bulls are added to the "J. A." herd every year. A constant weeding-out is in process, and a great deal of money and skill is required to maintain the standard of the herds. A distinctive type has been developed under these favorable conditions, which is instantly recognized by well-informed live-stock men, regardless of where the animals are seen.

Richard Walsh, the manager of the ranch, has been upon the ranch nearly twenty years, and is thoroughly conversant with every detail. Within the past ten years there has been quite an improvement in quality and nature of the cattle on the ranch. This is ascribed to careful breeding, good pasture, and gentle handling. Formerly it was difficult to induce the range cattle to go through a gate; at present they can be driven anywhere with ease.

"Our experience," said Mr. Walsh, "is that the cattle of the 'J. A.' herd sell right up to the natives, and repeatedly top the market. Indeed, it requires an exceptionally good bunch of natives to beat them. As the high grade of beef becomes more and more popular this class of beef is going to be in strong demand, and there will be more money made in high-grade cattle than there has been in the past. We are approaching European prices for fat cattle. While the herds of the future may not be so large as at present, the cattle business presents better inducements for young men than any branch of business I could name. The quality of the live stock is becoming more important, and the leakages and the losses from poverty and cold will finally be almost eliminated. Land is advancing in value, and some day the young man who starts while land is cheap will find himself in possession of valuable property."

Mr. Walsh has found that by subdividing the pastures, the calf brand of the "J. A." division has increased from 66 per cent to 75 per cent and the increase of the "J. J." calf brand has been from 80 per cent to 90 per cent. He contemplates a further division of the pastures. This ranch was one of the first to be fenced in the Panhandle. The work was commenced in 1880. In 1885 the "Tule" pasture was fenced off, and a year later the winter and summer ranges were established. The practice has been to sell the steers at two years old. If sold in the spring, they go to the northwest to be fattened for the market; but if sold in the fall, they generally go to the feed lots of Kansas or Missouri. During the last twenty years about 180,000 cattle have been sold from the ranch, and receipts from the sales have amounted to more than $3,500,000.

It requires 800 bulls for the two herds of the Adair Ranch, and bulls are retired from service after they have reached an age of eight years. None but registered Hereford bulls are used for the thoroughbred herd, and the perfection to which the white faces have been brought on this ranch, by many years of careful selection and elimination, is shown by the wide reputation of the herd. The herd has carried off honors at live-stock shows of Fort Worth, Texas; Denver, Colorado; Chicago, Illinois; and at the World's Fair competition in St. Louis, 1904. The first great success was the grand champion sweepstakes prize which was awarded a carload of two-year old steers from the Adair Ranch at Chicago in 1901. This was regarded by rangemen as one of the most remarkable feats ever accomplished from the range, as the steers, were entered in competition with native steers, bred and prepared for the exhibition on some of the oldest and most noted breeding farms of the United States. Palo Duro broke the record, and the advent at the International Live Stock Show was a prophecy of a new era in range-breeding of America.

This prophecy was fulfilled three years later. The World's Fair Grand Championship was an honor awarded to a carload of 15 two-year-old steers from the Adair ranch—one of the highest honors any live-stock man of the world could hope to secure. The following explains this remarkable record:

Load of 15 two-year-old "J. J." steers, fed by D. W. Black, Lyndon, Ohio, first prize in the two-year-old class for the Eastern district, competing with cattle from Iowa, Illinois and Missouri.

Championship for two-year-olds from the Eastern District.

Grand Championship over all breeds in the division for fed cattle.

This carload of "J. J." steers also won all the special prizes in their section offered by the American Hereford Cattle Breeders' Association.

Calves from the same herd, in the grass-fed division, won the first prize in their class, being awarded the Calf Championship over all breeds, and won all the Hereford specials in their section.

The Adair Ranch is owned by Mrs. Cornelia Adair, of New York State. Mrs. Adair is the daughter of General James S. Wadsworth, a distinguished commander of the Federal Army during the Civil War. Fort Wadsworth in New York Harbor was named after General Wadsworth. He was a member of the Peace Conference previous to the Civil War. He served in the first battle of Bull Run, was made Brigadier General in 1861, Military Governor of Washington in 1862, and was Division Commander at Fredericksburg and Gettysburg. He was sent upon a special tour of the South and West in 1864, and was mortally wounded at the Battle of the Wilderness, May 6, 1864.

The husband of Mrs. Adair was John G. Adair, of Rathdair, Ireland, a wealthy landowner, who became interested in ranching in the Panhandle as a partner of Charles Goodnight in 1877, and invested heavily along Palo Duro Cañon. Mr. Adair died in 1885, and three years later the firm was dissolved, the Adair estate retaining the greater part of the property. Mrs. Adair has always shown a great interest in the details of the ranch, and is recognized as a woman of remarkable business ability, wise liberality, and broad, humanitarian views. Extensive improvements in the general headquarters building at the ranch were recently planned by her, and the building is one of the handsomest and most completely appointed ranch structures in the United States. Located under the edge of the great "break" that extends for many miles across the Panhandle of Texas, the spacious building is supplied with water from a constantly flowing spring, which is delivered hot or cold to any part of the house. The headquarters are heated by a furnace, lighted with acetylene gas, and possess every modern facility for comfort and convenience.

The work upon a large cattle ranch is never done, and it requires a clear head to plan for each season's campaign and an executive mind to put the plans into effect.

For ten years Richard Walsh has been in charge of the Adair Ranch, and the uninterrupted financial success which has attended the ranch operations has been in an important degree due to his energy, business tact, and ability to direct men. Mr. Walsh gained his position wholly through merit and practical knowledge of ranch operations. He is a native of County Dublin, Ireland, where he was born May 19, 1864. His father, Richard Walsh, Sr., is now living and is well known in Ireland as a large land proprietor and a rare judge of horses and cattle. His son, Richard, possessed every desirable advantage of education, but at twenty-one years of age he decided to become independent and to engage in the live-stock business. Charles Goodnight gave him his first introduction to life upon the plains in digging post-holes at $20 a month and board. It was not the sort of work the tender-skinned young man had been used to, but he dug the post-holes with so much conscientiousness and zeal that he was advanced to the position of range-rider. He next kept the books of the Adair Ranch for a year, and then was placed in charge of the "Tule" outfit, a position he held for three years. In 1893 he was made assistant manager of the ranch, and in the latter part of the same year became manager.

The career of Mr. Walsh is an incentive to young men who are ambitious of advancing in the live-stock business, as it is a standing refutation to the claim that one must have a "pull" in order to attain the higher positions on a large ranch. The success of Mr. Walsh has been due to conscientious performance of duty. Modest, courteous, obliging, and endowed with a large share of patience, liberality, and perseverance, the manager of the Adair Ranch truly represents the highest type of the noble calling in which he is engaged.

Swine and Their Wild Relatives.

The Maligned Pig.—Its Long Struggle for Popularity.—Ancient Aversion to It.—Chinese Its Early Friends.—Its Great Changes Under Domestication.—Living Species of the Wild Boar, and their General Characteristics.—Derivation of the Domesticated Pigs.—Their Extraordinary Fecundity.—Specialized Forms in the Swine Family.—The Tapir and the Peccary.—"Wild Pigs" of South America and of the Pacific Islands.—Specific Character of the Domesticated Pig.—Its Intelligence and Habits.—Our Unjust and Selfish Attitude Toward It.—The Pig in China, and Tradition of Its Domestication there.—Some English Breeds.—The Pig in Our Colloquialisms.

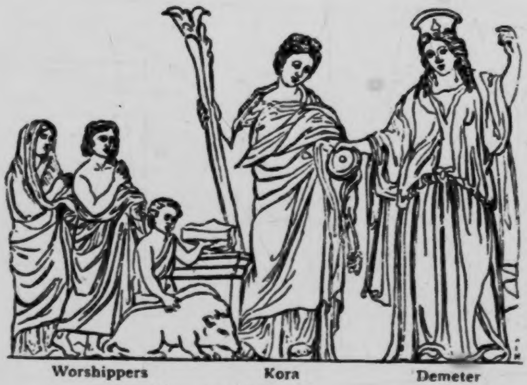
The prominent place in the domestic economy and in the commerce of the western nations of the world that is now occupied by the pig was attained by that maligned but very useful animal only after a long and hard struggle for recognition of its merits. By many generations of our ancestors it was reviled and denounced without stint for its alleged offensive characteristics, and even at the present time most people, not only of our own, but of other enlightened countries, and who do not hesitate about eating it, regard it as an ignoble creature; and from a very early period, as among the ancient Egyptians, they have held the occupation of the "swineherd" in great contempt, and as one suited only to rude and ignorant persons of marked "swinish" tendencies themselves. During the recent war between the United States and Spain, our friends, the enemy, could find no epithet to apply to us that seemed to them more opprobrious than that of "Yankee pigs."

No small part of this aversion to the pig was, and still is, due to prejudices arising from the Semitic religious beliefs that were adopted and cultivated by the western nations. In the Mosaic Laws the flesh of swine was forbidden as food to the Hebrews, who learned to hold it in such detestation that they would not speak its name; and it was also unlawful for them even to touch the carcase of a dead pig, which inhibition did not extend to the dead bodies of other animals. In the later books of the Old Testament the people were told many times that they must hold this animal in utter abomination. So in the New Testament: when the legion of devils that possessed the Gadarine lunatic discovered that they were to be cast out of him, pleaded, successfully, that they should be sent into a herd of swine that was feeding near by—thus giving these creatures an association with devils that has been handed down through many centuries; warning is given of the folly of casting pearls before swine, and in the story of the prodigal son, he reached his lowest degradation when his wrecked fortunes forced him into the fields to feed and otherwise care for swine.

The Mohammedan creed is extremely hostile to swine, and among its more ignorant believers the animals are regarded with furious fanatical hatred.

But the pig was not so unfortunate among all ancient nations of which we have historical knowledge. Although it was held in disfavor by the very early Greeks, it became in later times highly esteemed among that people, and was the animal often preferred for sacrifice to Demeter, the goddess of the harvest. But it appears to have been in China where the pig's value to man first was fully recognized and utilized. The Chinese would seem to have been the pioneers in breeding swine with a definite purpose radically to change the general character and to improve the qualities of the animals; and from the earliest known period in their history they have had the domesticated pig in a highly developed form. In modern times their stock has contributed greatly toward the improvement of swine bred by the western nations.

In a previous section we have referred to the attitude of the ancient Egyptians toward swine and their flesh—the use of the latter having been interdicted by their religious ordinances. Some writers are of the opinion that this was not so much due to any blind antipathy to the animals themselves as to a belief in the unwholesomeness of pork in their warm climate, and that the latter therefore was their leading reason for putting swine's flesh under ban as food. It is probable, if this be true, that the Hebrew aversion primarily was due to this Egyptian sanitary regulation, and that later the Jewish people conceived the pig inherently to be "unclean," and its flesh for that reason unfit to be eaten, and not because it is rather too strong a food habitually to be consumed by dwellers in warm climates.

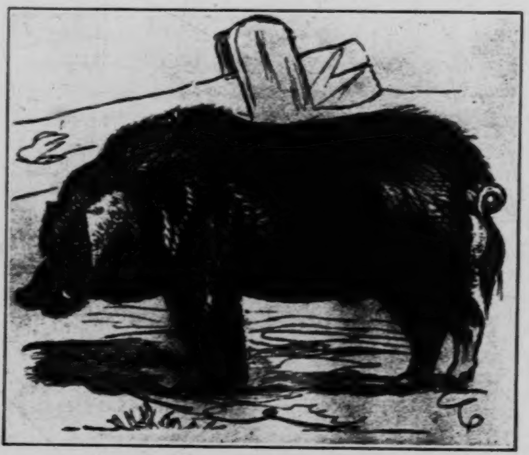


Sacrifice of a Pig to Demeter.
(*From Bulfinch's "Age of Fable."*)

The pig has undergone some very radical changes in form and in general character since coming under man's control, and in this respect would seem to rank next to the sheep. This is strikingly shown by contrasting the large, savage, long-legged, and gaunt wild boar that leads horses and dogs a wearisome chase, with the round, plump, small-headed, short-legged, and amiable modern pig that, when ready for the sacrifice, has difficulty in getting from one side of its pen to the other. Among western nations much of this change has been wrought within a hundred years or so. The old English unimproved domesticated pig of the seventeenth and eighteenth centuries was an ugly and unwholesome-looking beast, of sullen mien, and of form and other physical characteristics that seemed to place it about midway between the wild boar and our present well-developed breeds of pigs. The old long-legged Irish pig of the same period was equally disreputable in appearance. It stood high from the ground, and could run almost as fast as a greyhound. Beside its uncommonly long legs, long tail and long snout, it had a pair of curious appendages, about three inches in length, to the under side of its throat. These were cartilaginous in structure, like the ear; but the purpose of Nature in providing them is unknown.

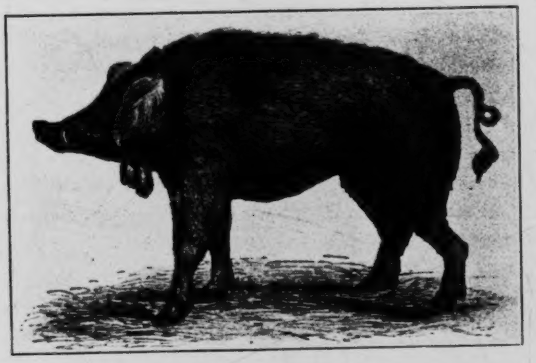
The pig is an old-timer in Britain. As set forth in a preceding part of this volume, it was one of the domesticated animals of the Iberians, a people of pre-historic origin who succeeded the cave-dwellers in that country, and who were themselves overwhelmed and enslaved by the Celts, who invaded Britain long before the Christian Era and became stock-raisers.

But neither this old English nor the old Irish pig was more outlandish in appearance than the "pine woods hog" of our Southern States, which is a more than half-wild creature that is much like the "razor-back" pig of the Virginia and North Carolina mountains, to which we have referred on an earlier page. Both have reverted to many of the characteristics of their wild ancestors, and are far from being ideal in form and value.



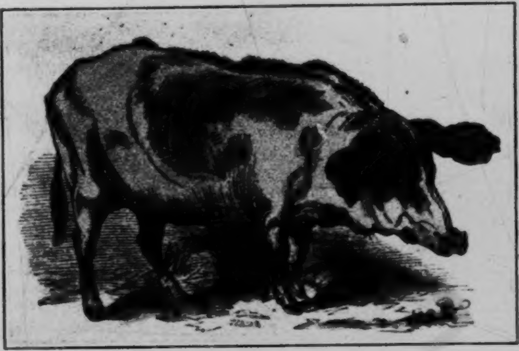
The Common English Hog of the Eighteenth Century.
(*From the Encyclopædia Britannica.*)

We are in no uncertainty concerning the origin of our domesticated pig, for its wild prototypes still abound in various parts of the Old World, and, as stated in a preceding section, the evolutionary history of the swine family that extends back into early Tertiary times is fairly well known, and proves it to be of a group of very old mammals. As we have said, remains of generalized swine-like animals have been found in abundance in Eocene and middle Miocene formations in America, and are also present in those of Europe and of India. In America these ancient swine gradually dwindled away, and the boar-like species became wholly extinct. The general family, however, continued to be represented in the two still existing creatures, the tapir and the peccary; the latter being the smallest and most insignificant member, but the more closely allied to the pig. On the other hand, the boar-like species continued in the Old World without interruption and became the wild boar of the historical period, from which the domesticated pig was derived, and which still exists in large numbers.



An Old Long-legged Irish Pig.
(From Darwin's "Animals and Plants Under Domestication.")

The wild boar (*sus scrofa*) is very plentiful in Asia, fairly numerous in northern Africa, but is now rather scarce in Europe; and in each of these grand divisions is much the same animal, the differences being confined to minor variations. It is a formidable beast, and has played an important part in the affairs of mankind through many ages. Like the domesticated pig, it has a mobile snout with flat and expanded end containing the nostrils; its feet are narrow, with four completely developed toes on each, the outer two of which not reaching to the ground in the ordinary walking position; stomach simple, except for a more or less developed pouch near the cardiac orifice; and head and snout perfectly adapted to rooting in the ground for food. It differs from the domesticated pig more conspicuously in its form and in its great development of tusks. The head is larger and the forequarters much higher and thicker, relatively, than those of the tame variety. Its tusks are terrible weapons. They are the canine teeth recurved and of prism-shaped section, two of which proceed from the upper jaw and two of yet larger dimensions from the lower; the latter, which project outward and upward, being kept sharp by friction upon the upper. With these it inflicts wounds of the most frightful character, ripping in an upward direction, and aiming especially at the soft parts, as the belly, flanks, or groin of the horse, dog, or man that comes in its way with hostile intentions. In old age the tusks in the lower jaw gradually curve inward and upward over the snout until they are much impaired for purposes of attack, but remain serviceable for defense in the frequent fights that the boars have among themselves during the rutting season; but at the same time the tusks of the upper jaw begin to develop outward and upward, and these take the place of the lower ones as offensive weapons.



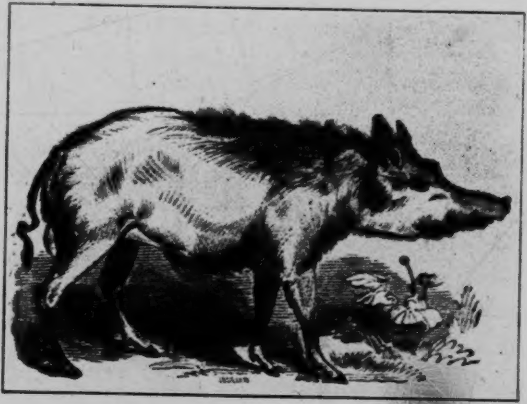
The Old "Beech Nut Hog" of Ohio and Kentucky.
(From Stebbins' "One Hundred Years' Progress.")

The boar is of grayish black color, and its short kinky hair is thickly interspersed with coarse stiff bristles which assume the form of a mane along the spine. This hairy covering with its reinforcements of bristles varies much under different conditions of climate, but when best developed, as in the European boar, the bristles are thicker and the undercoat of hair denser and more curly. In the male the bristles are much coarser than in the female, and the wild animal as far exceeds the tame in this particular as in its strength, ferocity, and in the largeness of its tusks; and in size the males of most of its varieties considerably exceed that of the common run of domesticated pigs as much as they excel them in endurance and in warfare, some individuals taking on giant-like proportions.

The wild boar finds its more agreeable abode in the central parts of the temperate zone, although in Europe and in Asia it ranges toward the northern borders of that zone, and in north Africa toward the southern borders. In common with all of the other members of the great order of hoofed animals it is, and always was, entirely unknown in the Australian region. It inhabits the recesses of forests and marshy districts, and is said to exist in the greatest number at the present time in Turkestan and adjacent parts of central Asia. The several varieties preferably are nocturnal, issuing from their coverts at twilight in quest of food. While the boar, like the domestisated pig, is omnivorous, its food in the main is of a vegetable nature—roots, nuts, and grain; its other food consisting of such small animals and birds and their eggs as chance may put in its way.

The wild boar is farrowed with a full equipment of permanent teeth which thereafter increase only in size, the tusks growing very rapidly. Throughout the greater part of the year the older males prefer a solitary life, and to associate with their kindred only in the breeding season, during which time the boars fight furiously with each other; and it is in these combats that most of the aged and therefore less vigorous gladiators, after having escaped the many other perils of boar life, meet their fate; for but few of them die a natural death. The female ordinarily is less pugnacious, but shows great courage and fierceness in defense of its young. Usually the females associate in small droves for mutual protection from their numerous prowling enemies.

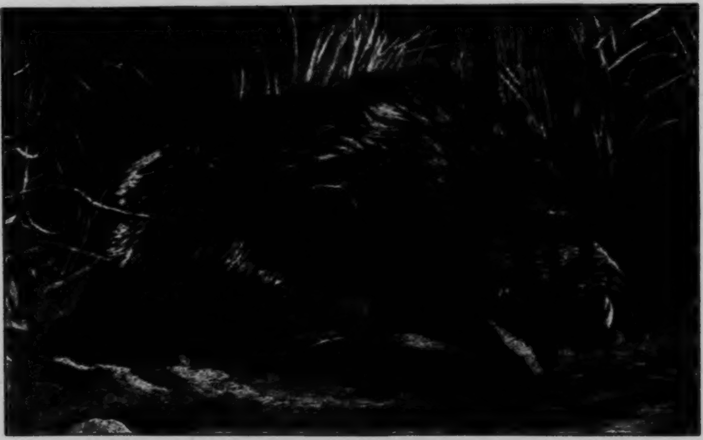
During the middle ages the wild boar abounded in France, Germany, and in other parts of central and southern Europe, and also in the British Isles, and hunting it was the most popular of all field sports with the "gentry," "nobility," and with the male members of the "royal" families; and at the Yuletide festive gormandizings, a boar's head occupied the center of the board. While the animal still lingers in parts of France, Germany, and Italy, it has long been extinct in Great Britain. Evidently it had become scarce in England in the time of William the Conqueror (1027–87), for in his reign it was decreed that anyone—which probably meant any "common man"—guilty of having killed a wild boar should have his eyes put out. The animal appears to have been a denizen of British forests until the reign of Henry II. (1133–89), after which nothing is heard of it in England until the reign of Charles I. (1625–49), when an attempt was made to re-stock the New Forest with boars imported from the continent, but which resulted in failure.



The Old "Pine Woods Hog" of Our Southern States.
(*From Stebbins' "One Hundred Years' Progress."*)

Boar-hunting or "pig-sticking", as they call it, is still a favorite sport of Englishmen in British India. The beast "goes to run," as it is termed, in December, after which for the greater part of the year its flesh is uneatable; the season for hunting it commencing in September, when it is in its best condition. The hunters are mounted on good horses and pursue their game without the aid of dogs, running the boar to bay by the mere speed of their coursers. It is said that a lusty boar, if it gets a moderately good start, can maintain a speed that will keep it ahead of the fastest horse for the half of an hour; and that it can do so even if fox-hounds instead of horses be following it.

Whether all of the pigs now domesticated among the nations of the earth are descendants of some one of the several varieties of the wild boar, or represent an intermingling of these varieties, still is an unsettled question. There is no historical evidence bearing upon the matter, and the researches of naturalists who have endeavored to determine it have not led to an unanimous conclusion. However, it is generally affirmed that, whatever may have happened afterward, the primitive domesticated pigs were derived directly from the wild boar of Asia and Europe. While there are some slight differences between the European, the Asiatic, and the African wild boars, they are only such as readily may be accounted for by effects of differences in environment. It is agreed that they and the domesticated pig are of the same species, and it is known that they will breed together and produce young capable of perpetuating their kind. But it is not improbable that in Asia the original domesticated stock may have become crossed with the Polynesian species, one of which, as we shall see presently, rather conspicuously differs from the continental boar.

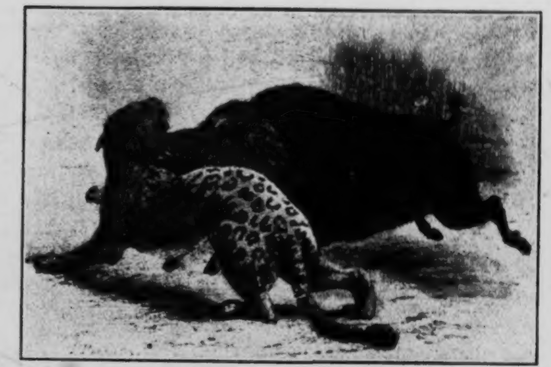


The Asiatic Wild Boar.
(From Rousselet's "India and Its Native Princes.")

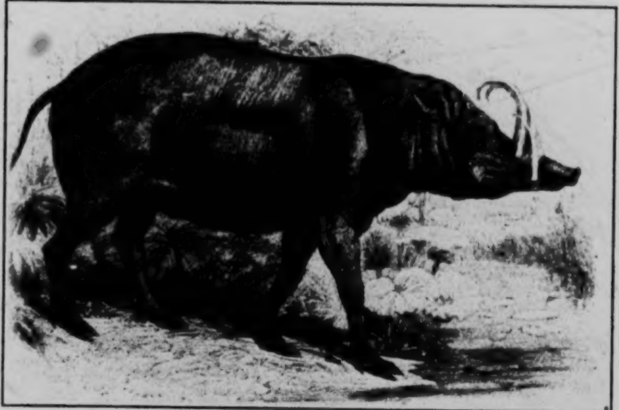
It is a curious circumstance that the young of all of the wild kinds of pigs, as far as is known at this time, present an uniform coloration, being dark brown with longitudinal stripes of a paler color; the stripes resembling, except as to color, those seen on the little chipmunk or "ground-squirrel." But in every variety this striping completely disappears after the first three or four months. This peculiar marking rarely is seen in the young of domesticated pigs in any part of the world, being observed only once in a while in certain breeds. Yet it is to be regarded as merely dormant in all of the others, for when any of them take to a wild life the striping reappears in their young after a few generations. Instances of this are seen in the wild pigs of Jamaica, and of Colombia in South America, which are, of course, descendants of domesticated animals introduced from Europe since the Columbian discovery, for, as already remarked, there were no true pigs in the New World at that time. These animals have revived this aboriginal characteristic, and produce young that are striped like the young of the various truly wild species.

The swine family early became, as we have mentioned, widely distributed over the Old World, excepting in the Australasian region, and in the course of events developed some curiously specialized forms. In the kingdom of Nepaul on the south slope of the Himalaya Mountains, and in the native State of Bhutan in the northeastern part of India, there is one of these, a diminutive pig (*sus salvanius*) that is no larger than a hare. Owing to the inaccessibility of these regions, and to the animal's retired habits, and to the facility with which it conceals itself under the bushes and in the long grass of the districts it inhabits, very little has been learned of this miniature pig, the young of which are striped in true wild-pig fashion.

In the Polynesian region there are several species of the wild pig which are thought to be closely allied to the domesticated races, and are believed to be capable of freely breeding with the latter. Some authorities hold that inasmuch as the pig has been in domestication in Asia from an unknown period in the past, it is an open question whether most, if not all, of these Polynesian varieties may not be local races derived originally from imported domesticated stock. However this may be, it is not improbable, as heretofore remarked, that modern Asiatic domesticated pigs have not been entirely uninfluenced by some of these islanders. Among the latter is the singularly specialized babirusa (*sus babirusa*) of Celebes and of several adjacent islands. Notwithstanding that the two Malay words forming its name mean "hog-deer," the "babi-rusa" is a true pig, about the size of our common one, but more slenderly built, and almost entirely devoid of hair. But the male is further and particularly distinguished by its remarkable tusks, which are a development of the canine teeth. The upper canines are recurved and thus directed upward, and after piercing the cheeks are curved backward in a semicircle; the lower canines curve upward and backward, but form a smaller semi-circle, which is nearer to the nose than the other. These strange tusks, which are destitute of enamel, give the creature a ferocious aspect, but as their semicircular form renders them useless as weapons, the babirusa is not dangerous. Nature has concealed her purpose in providing this animal with these appendages that continue to puzzle all investigators. Concerning them, Alfred R. Wallace, in his "Malay Archipelago," says: "It is difficult to undestand what can be the use of these horn-like teeth. Some of the old writers supposed that they served as hooks by which the creature could rest its head on a branch. But the way in which they usually diverge just over and in front of the eyes has suggested the more probable idea that they serve to guard these organs from thorns and spines while hunting for fallen fruits among the tangled thickets of rattans and other spiny plants. Even this, however, is not satisfactory, for the female who must seek her food in the same way, does not possess them. I should be inclined to believe rather that these tusks were once useful, and were then worn down as fast as they grew, but that changed conditions of life have rendered them unnecessary, and they now develop into a monstrous form, just as the incisors of the beaver and the rabbit will go on growing if the opposite teeth do not wear them away. In old animals



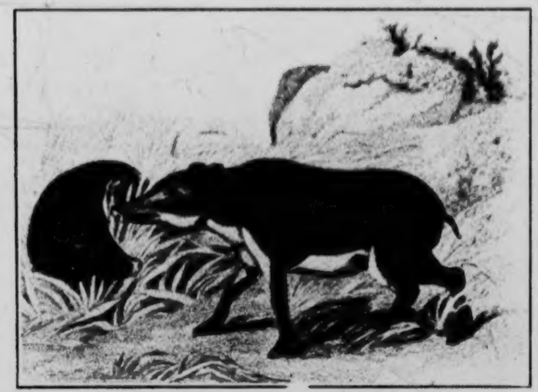
Fight Between a Boar and a Panther.
(*From Rousselet's "India and Its Native Princes."*)



The Babirusa.
(*From Wood's "Illustrated Natural History."*)

they reach an enormous size, and are generally broken off as if by fighting."

It has been suspected by some naturalists that the babirusa is more nearly identified with the domestic races than its curious specializations would seem to imply, and that it has been crossed with Asiatic domestic breeds of pigs.

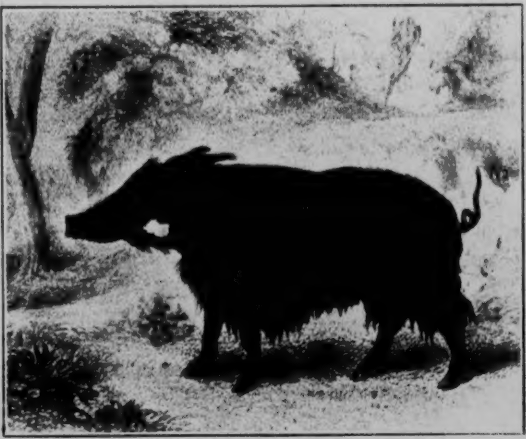


The Papuan Hog.
(*From Jardine's "Naturalist's Library."*)

The large island of New Guinea, to the northward of Australia, affords, or did so some years ago, an abode for a curious specimen of the hog family. This was the "Papuan hog" (*Sus papuensis*), a wild and pugnacious creature which was said to be a connecting link between the American peccary and the true swine, but which probably was from domesticated stock. It was eighteen or twenty inches high, light, slender and graceful in form, tuskless, with a round body, short ears, and a rudimentary tail. It was, however, without a trace of the dorsal glandular organ and the odor given forth by this, that are characteristic of the peccary. The hair of the upper parts of the body was of blackish red, which color became duller and browner on the legs; that of the jowl, throat, flanks and belly having been white. Wallace, in his "Distribution of Animals," refers to the "Papuan hog" as a "peculiar form of wild pig."

On some of the South Sea islands three-quarters of a century ago there existed another very queer form of pig. This was the Koiropotamus (*Sus koiropotamus*), which is said by some of the naturalists of that period to have been "a native of these islands." It had rather long, backward-projecting ears, the body was covered with long bristly black hair that gave it something of the appearance of a goat, and the creature was without tusks. It was supposed to be a descendant of domesticated pigs, but Jardine, from whose "Naturalist's Library" our engraving of the Koiropotamus was taken, says that "it is known by the figure [drawing] of M. Demolin [a French naturalist] only." While the earlier naturalists described the Koiropotamus, little seems ever to have been actually known of its characteristics, and it probably now is extinct, as nothing is heard of it in our own times.

The so-called "wart-hog" (*phacochœrus*) of Africa is another peculiarly specialized creature and is more boar-like in form of body and of head than is the babirusa. There are two species, one of which (*P. africanus*) is commonly known as the halluf, and the other (*P. æthiopicus*) as the vlackvark; the former inhabiting Abyssinia and adjacent regions, and the latter southern Africa. They are of the size of our mature pigs, and have large warty excrescences on each side of the face, and tusks that are equally as remarkable, although quite different, as those of the babirusa. These tusks, as with the other animal, are extraordinary developments of the canine teeth. The upper canines are of prodigious size and curve outward and upward; while the lower are more slender, but follow the same curve. The upper

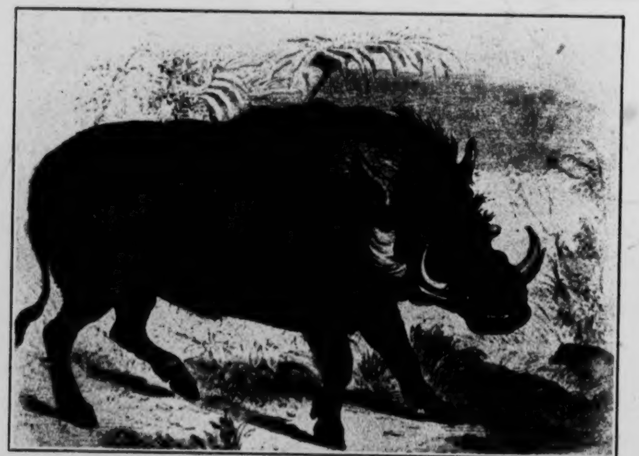


The Koiropotamus.
(*From Jardine's "Naturalist's Library."*)

ones have enamel only upon the apex, the lower ones having it upon the crowns except on the posterior surface; but from both it wears away early in life. As age advances, all of the teeth, except the canines and the posterior molars, have a tendency to disappear, but these, which in frequent cases are the only teeth left in the jaws, attain amazing proportions, the upper canines appearing more like the horns of a bull than like boar's tusks; and, unlike the babirusa, these huge horn-tusks are common to both sexes. As weapons they are unduly large for such an animal, and in middle age become comparatively blunt; but for up-rooting by sidewise movement of the head they are well adapted. The warty excrescences and these great tusks, together with the heavy mane and large head and snout, give the animal a repulsive and ferocious appearance.

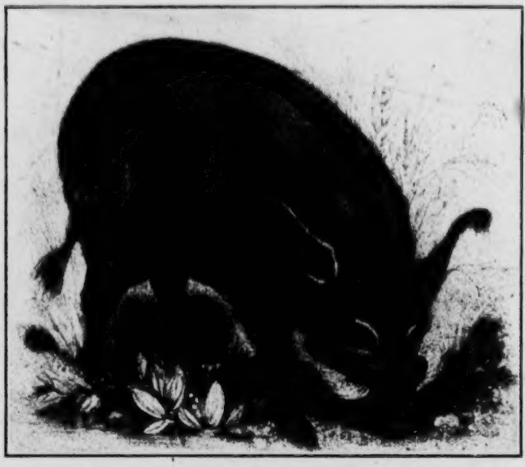
Still another, but less remarkable, African variety of the swine family is the so-called "river-hog" (*Potamochœrus*) of western and of southern Africa, of which there are two species, each having a boar-like head and body and short curved trenchant tusks, and being practically a true pig. The boschvark (*P. africanus*) or gray "river-hog" inhabits southern Africa, while the red "river-hog" (*P. penicillatus*), which has no common name, is a denizen of western Africa. The latter differs from the former in having long and peculiarly shaped ears, the upper parts of which become narrow and thin, like bands, and therefore lop over. These "river-hogs" frequent wooded river-banks and marshy districts, and their young as well as the young of the "wart-hog" are striped like the young of all species of wild pig, which is a strong indication of close affinity.

The tapir and the peccary are related to the pig, the latter usually being classified as a member of the swine family, while the former is further removed. Both have a general resemblance in form to the wild pig and also imitate most of its modes of life. The tapir is far the older in point of existence as a type, and, indeed, we have in this creature a form of mammalian life, the history of which, as we have seen in a preceding section, runs back far into geological antiquity; and, as its fore-feet have four toes and its hind-feet three, it is a link between the even toed and the odd-toed hoofed mammals. It has its representatives on opposite sides of the globe, one species (*Tapirus indicus*) occupying the Malay Peninsula and some of the adjacent islands, while several others range over central America and over the larger part of South America. This is the most remarkable instance among mammals of a wide separation of animals that practically are alike. The Malayan tapir is slightly larger than the American, and is above the average size of our full-grown pigs. The bristly hair of its head, neck, shoulders, and legs is black, while that of the sides of its body and of its back nearly to the root of the tail is white, thus giving the animal the appearance of having a small white blanket thrown over it. The South American tapir, which is indigenous there, is represented by at least three species, although some naturalists would specify one or two more, and is dark brown or blackish when full grown, and about the size of our mature pig. *Tapirus americanus* is the common tapir of Brazil and Paraguay, and sometimes is found on the Andean slopes at elevations of from 10,000 to 12,000 feet,



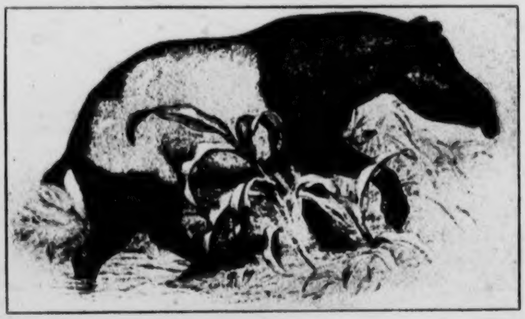
The Abyssinian Wart-Hog.
(*From Wright's "Natural History."*)

though most of its species haunt the thickly forested lowlands. The other two species, which bear respectively the formidable scientific names *elasmognathus bairdi* and *elasmognathus dowi* occupy, in diminishing number, the Central American region. The tapirs undoubtedly may justly claim the old palæotherium of the Eocene period as their rather direct progenitor; and while the Asiatic variety long has been widely separated by migration from its American kindred, the several tribes have, in all the ages that have elapsed, diverged but little from their tapir-like ancestry, still resembling it closely in external appearance, and retaining about the same physiological functions and about the same modes of life.



The Boschvark.
(*From Wood's "Illustrated Natural History."*)

The peccary of South America originated there, and in form is very much like our pig, yet it possesses certain peculiarities that make it a different animal. When the Spaniards entered the Darien country early in the sixteenth century they were, as mentioned heretofore, greatly puzzled by the peccary, for, while it seemed to be a pig, they discovered by close examination that really it was something else. There are but two species, the "white-lipped" (*Dicotyles labiatus*) and the "collared" (*Dicotyles torquatus*), the former living in large herds and the latter in families; their other distinctions being the white lips of the one, and the collar-like band of whitish bristles that nearly encircles the neck of the other. In both the general color of the bristly hair is dark, with suggestions of lighter and zebra-like stripes. In form each is very like our pig, is even-toed, and has the pig's snout and feet; but the head is nearly like that of the wild boar, and, as the boar's, is armed with curved, but much shorter, sharp-edged tusks. A peculiarity common to both species of the peccary and that especially marks their divergence from the boar species, is a dorsal glandular organ that secretes an oily musky substance. Both are smaller than our pigs, but the white-lipped is the larger of the two. The latter ranges from Patagonia to Honduras, and is savage and pugnacious; and when wounded it is very ferocious, and all of the others will fight furiously for the injured one. The collared peccary also extends its range as far south as Patagonia, and some fifty or seventy-five years ago was common in the lowlands of Texas and in parts of the Indian Territory and of Arkansas. Within the last ten years peccaries were to be found in the Neuces River country of Texas, but at present their range hardly extends north of the mouth of the Rio Grande; though there may be a few lingering in the southernmost part of Texas and in Arkansas. The collared species will fight violently, but it is not so dangerous as the other. It is probable that the peccary is the result of an ancient divergence from the tapir, for, while it is lower in stature, it bears considerable resemblances to that animal in outward appearance and in the structure of its skeleton

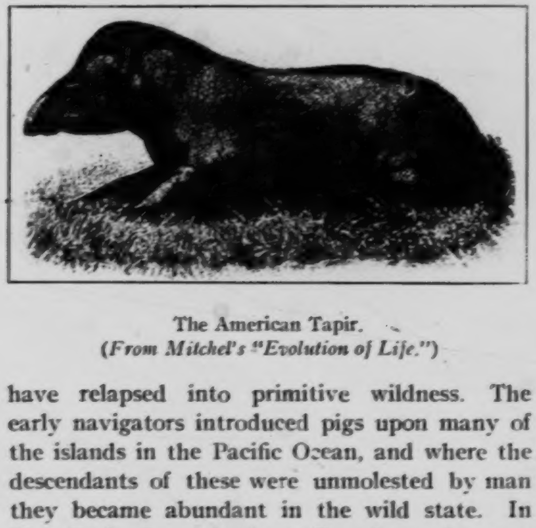


The Asiatic Tapir.
(*From Mitchel's "Evolution of Life."*)

is found the same regions, and has about the same habits.

The capybara or so-called "water-pig" of South America, is no pig, but belongs to the order of rodents, of which it is the largest species now living. It has the form of a guinea-pig, but is almost as large as our common pig, its hoofed toes being about its only pig-like characteristic.

While it is an undetermined question whether our highly-bred modern pigs would be able to sustain themselves if turned loose in a wilderness, the old and unimproved breeds readily proved their ability to do so. The "razor-back" pigs of the southern Alleghany region have flourished there and managed their own affairs since early in the seventeenth century; and in the forests of South America there are large droves of descendants of Spanish domesticated pigs that have relapsed into primitive wildness. The early navigators introduced pigs upon many of the islands in the Pacific Ocean, and where the descendants of these were unmolested by man they became abundant in the wild state. In New Zealand and in Australia, where pigs were introduced in comparatively late times, they became established in a wild life within a few decades.



The American Tapir.
(*From Mitchel's "Evolution of Life."*)

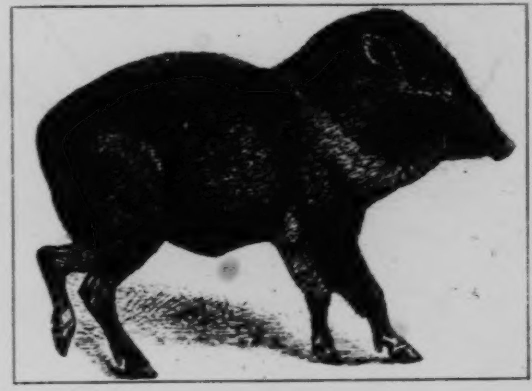
The flesh of a well-conditioned young wild boar usually is of finer flavor than that of the domesticated porker when the latter is confined in a pen and fattened on a single kind of food; but when our pig has the free range of practically a primeval forest, in which it can feed on acorns, beech-mast, and the like, its flesh is improved in quality and may become even superior to the best of the wild variety. But since deforestation has more or less changed the face of the country in the United States, the opportunities of our pigs in this direction have been greatly curtailed, and but little pork of the mast-fed kind ever reaches the market. It is a singular fact that the flesh of the boar in its wild state, and in the proper season, is much superior to that of the sow; while in the domesticated animal that of the uncastrated male usually is so rank as to be uneatable.

The domesticated pig's place among its fellow-creatures is that of an omnivorous suoid mammal having a long mobile straight snout—excepting in certain breeds in which this has become slightly pugged or upturned—with a flat and extended end, in which the nostrils are situated. It is of the even-toed variety of hoofed animals and the grinding surface of its molar teeth are tuberculated or knobby; its body-covering is a bristly hair that in most varieties is kinky, but in nearly all, the males especially, is represented by true bristles along the top of the back and of the shoulders. As the "pig," the "hog," or the "swine," it is any domesticated variety of the wild boar, and under the influences of its life in captivity to man its coloration long since became varied, but its most common colors are white and black and combinations and blendings of these two. Among its marked characteristics are its preference for woodlands and for thicketed districts, and its fondness for moist and wet places.

Nothing in the character of the domestic pig is so remarkable as its fecundity. As with the wild varieties, its period of gestation is about four months, but it produces a greater number of young at a birth. Litters of from eight to twelve, and frequently of half as many more, may be and often are produced twice every year. It becomes capable of reproduction when about one year old, but it requires about five in which to attain complete maturity, and its term of life may cover thirty years, for naturally it is a long-lived animal. But in these modern times, and especially in our own country, the pig's market value causes, as a rule, its career among us to be cut very short. Under fair conditions for breeding, and entirely freed from the depredations of other animals, the pig, under such a free swing, would not be long in taking full possession of all of the habitable land of the earth. It has been calculated that the product of a single sow, under these conditions, with only six young at a time, in ten generations would be about six and one-half millions of individuals, of which the half-million probably would be lost by accidental death, leaving the even six million to continue this overwhelming work of propagation.

By most people stupidity and filthiness are held to be the more prominent of the pig's characteristics. Naturally it is not a stupid animal, and its reputation as such is very largely due to its meager opportunities in its civilized life for showing its intellectual capabilities. It is seldom that it receives any training whatever, such as that given the horse and the ox, but in the exceptional instances in which the advantages of education have been opened to it, it has proved almost as apt a scholar as has its distinguished distant relative, the elephant. Neither is it inherently filthy in its inclinations, the uncleanliness of its ordinary habits chiefly being due to the conditions that usually are forced upon it by its confinement in sties or other unduly small enclosures; to the offal character of food that often is given it; and to various other causes that are in the main also artificial to it. Long-continued influences of these unnatural conditions have made it more or less a scavenger, but this is not its native occupation. The wild pig is cleanly, and much the geater part of its food is, and probably by preference, of vegetable substances. Both wild and tame pigs have the propensity to wallow in the mire that is common to all of the pachyderms, and generally it does so for the purpose of ridding itself of vermin, or of protecting its thinly-covered skin from the attacks of winged blood-sucking insect pests. In this respect it is no more unclean than is the elephant, or the rhinocerous, or any one of several other animals that are alled to it and to these.

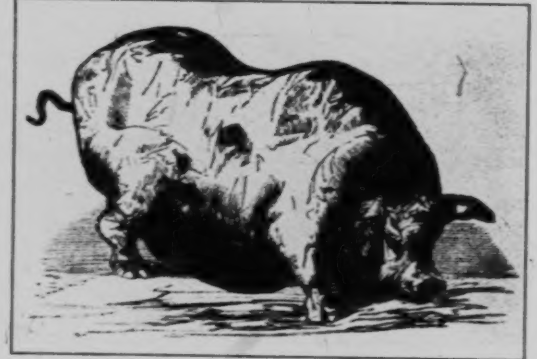
To an extent greater perhaps than that of which we may be conscious we are inclined to be influenced in our estimates of the characters of our domesticated animals by traditional ideas, and by historical and folk-lore associations connected with them, while we should base our judgment exclusively upon accurate observations of their conduct and on careful study of their various traits. It is obviously true that the horse and the dog possess qualities that raise them to a far higher plane of what we call "nobility" of character than has been attained by any of their associates in our service. But the question is whether we have not, while doing ample and possibly exuberant justice to some, been neglectful of the merits of others. The pig, even in our own times, to say nothing of its immensely greater hardships in earlier periods in its career, would seem to be a victim of such injustice; or, to modify the charge a little, of our neglect of its many good qualities, if not of our failure properly to apply our discernment to its case.



The Peccary.
(*From Mitchel's "Evolution of Life."*)

Our regard for the pig is radically different from that in which we hold the others. Victory, conquest, and other "heroics" are associated with the horse, more gentle sentimental notions are attached to cattle and to sheep, amused indifference is the goat's share, and contempt in varying degrees is the ass' portion. But to our subject here we maintain habitually a cold-blooded, mercenary attitude, and that only. Our interest in its welfare is limited at both ends by the most sordid calculations of the number of pounds of pork into which we hope and intend that it shall be converted at no distant day. All concern, if any there be, for its higher intellectual and moral development is totally eclipsed by our pride in its mere "gross weight," and by our reflections upon the anticipated financial results therefrom.

Yet, for even this extremely selfish interest in it, the pig has richly rewarded those who participated, step by step, in bringing it to its present highly developed form. Evidently, as we have said, the Chinese were the pioneers in this work, and began it in pre-historic times; modern nations being indebted to that patient and ingenious people for much of the general high quality and delicate flavor of their pork. A very old Chinese legendary story tells how Chinamen discovered that pork is good to eat. Away back in Chinese dark ages a man captured alive a boar-shoat, which he exhibited as a curiosity. The flimsy building in which he kept it caught fire and burned with the shoat in it, and after the blaze had died down the showman, seeking to remove the carcase, put a hand to the half-roasted body of the pig, which still was hot, and blistered his fingers. Sticking these into his mouth to relieve the pain, he got, from particles of the pig's skin that adhered to them, his first taste of roast pork, and was so pleased with its flavor that he called his neighbors and had them taste of it also. Soon everybody who could do so, and whenever it could be done, caught a wild shoat, put it in an inflammable booth, to which he set fire, and so had roast pig. Finally it dawned upon some genius among them that all this roundabout, troublesome, and somewhat expensive way of getting toothsome results from the animal could be obviated by killing it and then cooking it in the manner in which other food was cooked; and from that began the domestication of the wild boar and its physical improvement by the Chinese.



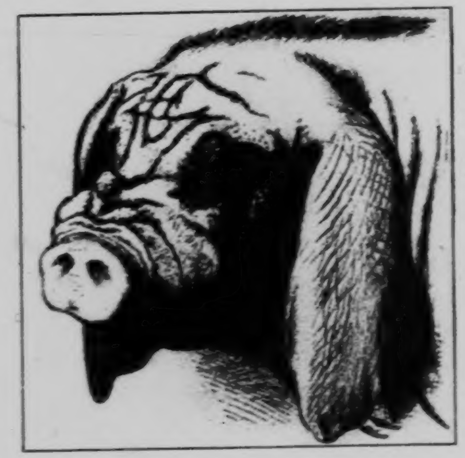
An Old-time Sway-backed Chinese Pig.
(*From Williams' "Middle Kingdom."*)

The Chinese stock is thought by some authorities to be from a race of the wild boar considerably different from the existing boars of Europe and Asia, and that is not found wild anywhere at the present time. However this may be, it is known that the Chinese have had the pig in domestication for many thousands of years, and that they have been intelligent, industrious, and persistent in their development of the stock. Very many years ago European breeders found that their pigs were much improved by being crossed with the Chinese varieties; and consequences of this discovery are apparent in the best of the English and American breeds of swine at the present time, for these largely are the results of crossing and of intermixing with the Chinese varieties. But a great credit for these results is due to the assiduous care exercised within comparatively recent times by breeders in Europe and in America in directing and controlling these crossings and interminglings, and especially in enhancing the flesh-producing qualities as well as those of fat of the various resultant breeds. Both the white and the black breeds of Chinese pigs are fattened easily, and have small bones; indeed, if permitted to do so they will load on too much fat to yield the most desirable pork, and by some judges this is held particularly to impair their qualities for making bacon.

From an early time the Japanese have had a pig of good pork-making qualities that is known as the "masked" pig, a name due to the heavy folds and wrinkles on its face. These, together with the very large drooping ears, give it a strange appearance, as is shown in the accompanying illustration.

To a large extent the improved stock from which the present highly developed breeds of pigs in the United States were derived was English. These American breeds are taken into account in other parts of this work where something their history is given, but here we shall refer briefly to a few English varieties that came into prominence and popularity in the earlier period of systematic swine-breeding in the mother-country, most of which still hold their place in public esteem. It is not known whether the ancient Britons domesticated the wild boar that was native to their island, or obtained their original tame stock from other peoples of Europe. They had, as we have seen, domesticated pigs in very early times; but, as already remarked, the English stock remained rough and uncouth until comparatively a recent period. In the later part of the eighteenth century the Bedford pig, that matured very early, was produced at the town of Woburn by a cross of a Chinese boar and a large English sow. When pure it was white with dark ash-colored spots in its thin hair and had a deep round body of large size and with short legs. This breed originally was introduced into this country by the gift of a pair to General Washington by the Duke of Bedford. English breeders early imported the Neapolitan pig, an Italian variety that was in high favor because of the superior quality of its flesh—an undersized black animal, not very hardy, and having a small head and a snout, erect ears, and slender bones, that became more or less identified with many, if not with most, of the English breeds. When crossed with the Berkshire its constitution was hardened, the form improved, and a remarkable tendency to fatten easily was developed. The Berkshire, of wide celebrity, of medium size, but larger than the Neapolitan, having black hair, short legs, a broad straight back, square hams and shoulders, and a short head with drooping ears, early became a favorite with many breeders in the United States. It has less fat in proportion to the bulk of the flesh than most varieties, but its cross with the Chinese has been found profitable from the resultant increase of fat. The Essex, after having been crossed with the Neapolitan, became one of the highly valued English breeds, and is said to have taken more prizes in England than any other. It is a medium-sized black animal, having a very shapely body, small head, short snout, and short legs; the meat being of fine quality. The old and rather common Suffolk, by crossing with Chinese stock, was transformed into the widely-known late Suffolk of great popularity in England. It also, matures early, and is comparatively a light eater, although it fattens well. The pure breed is white, of small but very symmetrical and compact form with a small head and short leg. The Middlesex, another very popular breed in England, sprang from a mixture of Chinese with some larger English stock. It is of greater size than the Suffolk, well formed, with medium bones, and usually is white. All of these breeds took their names from the counties with which their development was identified.

The words "pig," "hog," and "swine," and derivatives from and compounds of them, as with the common names of the others of our domesticated animals, are applied in our language to a great variety of things and purposes, as the reader will recall, and they are also the basis of a number of common phrases. As a rule, the latter imply disapproval, and range from the derogatory to the opprobrious. To this, but fe v exceptions occur to the present writer, one of which, "pigsney," strangely enough, being a provincial English term of endearment for a girl or a woman, but literally meaning a "pig's eye." Probably when this word is so used it is spoken in "a pig's whisper," that is, a very low whisper; and also a very brief space of time. The origin of the association of these matters with the voice of a pig would be hard to explain. "Hogmenary" is a north-of-England and a Scottish provincial term for either the last month or the last day of the year, when gifts and refreshments are sought and bestowed among friends and neighbors. To have "bought a pig in a poke" is to have made a bargain blindly, or without information as to the quality or value of



Head of a Japanese "Masked" Pig.
(*From Bartlett's "Wild Animals in Captivity."*)

the goods or thing paid for; "a pig in a poke" being something concealed, as a pig in a bag, until its price is paid. A "swine's-head" is a simpleton, a blockhead; and to be "swine-drunk," or "hog-drunk," is to be excessively drunk, in the gutter, although no pig ever was known voluntarily to become even tipsy. To be "swinish," "hoggish," or "piggish," is resembling or befitting swine, acting like a pig, especially in eating or drinking, to be gross, beastly, greedy or gluttonous, uncleanly, selfish, filthy, mean, and so forth, all of which implications do great injustice to the natural character of the pig. "Going the whole hog," and to "go the whole hog," meaning to go to the utmost limit, to extremes, usually in some rather unworthy undertaking, are familiar figures of speech, but they may be only indirectly associated with the pig. Carlyle has suggested that, inasmuch as he learned that the word "hog" was a synonym in Ireland of a ten-penny coin when that piece was in common use there, these phrases may have been of Irish origin, and that the ten-penny coin was the "hog" in the case.

"Long pig," applied in not long-past missionary times by the Fiji Islanders to the body of the Evangelist whom they killed, roasted, and ate, probably should not be classified as having had a derogatory meaning; not, at any rate, as far as they were concerned. The words were translated literally from their "*puaka balava*," which distinguished the body of the man from that of the comparatively short pig, of which animal, as a table delicacy, they were almost equally fond, and which, as heretofore mentioned, was introduced upon many of the Pacific islands by early navigators.

In various parts of the United States observant people expect "falling weather"—rain—when they see pigs aimlessly carrying straws or twigs in their mouths, but statistics are too scarce to enable us to determine to what extent this confidence in the pig's puissance as a weather-prophet has been supported and confirmed by actual occurrences.

Colonel Byron C. Rhome.

Educated in the school of the world, experiencing a greater number of ups and downs than ordinarily falls to the lot of man, and steadily learning wisdom from the lessons of a long and active career, Colonel Byron C. Rhome, of Fort Worth, Texas, is universally classed by his friends as a typical southern gentleman. Born in Georgia, Colonel Rhome has spent his life in the States along the Gulf of Mexico, and few men are better informed concerning the resources of a great region which is destined in years to come, to teem with an immense population and distribute its products to all civilized countries of the globe.

Colonel Rhome, at the age of sixty-seven, resides with his family in one of the most elegant and attractive homes overlooking the growing city of Fort Worth, and has lived to see his children successfully established in life with every prospect of useful careers.

As a Hereford breeder, Colonel Rhome has attained a national reputation, and his herd of 400 pure-bred Herefords is the largest herd of the kind in Texas south of the quarantine line. During the three seasons ending with the spring of 1903, the Rhome herd carried off the greatest number of premiums of any herd of Texas, gaining the title of the champion herd of the State. The celebrated bull, Beau Lamplight, 102799, won the grand champion sweepstakes at the Fat Stock Show at Fort Worth, March, 1903, and was adjudged grand champion at the Fine Stock Show, Purcell, Indian Territory, April, 1903. Last March is another great prize-winner, and Percival, 102783, won the grand champion sweepstakes at the Fort Worth Fat Stock Show, March, 1904, in the greatest display of fine stock ever made at Fort Worth. The champion sweepstakes bull, Longview, was also the property of Colonel Rhome, and for fifteen years animals of the highest grade have been reared and distributed from the Rhome ranch.

Colonel Rhome began in the cattle business of Central Texas a quarter of a century ago as a range man, but gradually was attracted to the more difficult field of rearing pure-breds. He has never been a follower of fads, and his reputation has been justly earned by years of conscientious study and close observation.

"During the last fifteen or twenty years," he said, "we have aimed to improve our cattle in the loin, in qualities, in style and horns, and also in constitution. We are now trying to establish a better horn, and the progress is in the desired direction. The ideal shape has practically been attained. The time has arrived when we are producing as good cattle in Texas as the States of the North. The Texas pure-breds have the advantage of being acclimated for any district south of the fever line, whereas cattle brought in from above the line must pass through a period of acclimatization. Here we have the artesian water, the lime in the soil, and a climate with a small proportion of severe winter weather. We shelter for heat and cold. The tendency is in the direction of smaller herds and greater care. A man who owns a small herd naturally looks after it more closely. I expect to see continued improvement in all lines of breeding."

Colonel Rhome and sons have two ranches within easy access of Fort Worth—a breeding ranch at Rhome, Texas, and a sales ranch at Saginaw; the former is twenty-five miles and the latter eight miles north of Fort Worth. These ranches are beautifully located, and are conducted according to the best ideas known in this important branch of the business. The aim is to establish blocky, early-maturity cattle, and this object has in an important degree been attained.

The Rhome family originated in Germany. The progenitors of the American branch landed on the Eastern shores of the Atlantic previous to the Revolution, and the name appears in the patriot army under Washington. Peter G. Rhome, father of Colonel Rhome, was born in Montgomery County, New York, in 1806, but as a lad was a resident of Herkimer County. In 1825, at the age of nineteen, he was threatened with consumption, and upon the advice of physicians went to Georgia in search of health. Improving in health, Mr. Rhome returned to his old home, and was united in marriage, March 25, 1832, to Miss Nancy Almira Crandail.

The Crandall family, from which Colonel Rhome descended on his mother's side, is of Welsh origin, the American branch arriving in Massachusetts as early as 1634 or '35. Rev. John Crandall, a noted Baptist preacher, who was obliged to seek an asylum in Providence, Rhode Island, from religious persecution, in 1637, was one of the distinguished members of the family. The father of Mrs. Rhome was Daniel Crandall, an educator of New York State, and author of the Columbian Spelling Book, a noted school text-book of the early part of the nineteenth century.

Mr. and Mrs. Rhome settled in Richmond County, Georgia, where Mr. Rhome engaged as a contractor in the construction of the Georgia Railroad, one of the earliest steam railways in the country, extending 171 miles from Augusta to Atlanta. Mr. Rhome was the first to break ground for the railway. The contract proved a disappointment financially, and Mr. Rhome entered the service of the railway company as a division superintendent, a position he held for fifteen years. He was a man of great energy and sturdy character. He started in life at eleven years of age as "whiskey boy" on the construction of the Erie Canal, near Rome, New York. In those days it was the practice to distribute whiskey in tin cups to laborers on large works, especially when the employment required men to stand in water.

Colonel Rhome was born November 22, 1837. There were four children in the family. Romulus John Rhome became a merchant, lost his health in Confederate service of the Civil War, and died in Brazil, at Santarem, a town on the Amazon River, where he was operating a mercantile establishment. A sister of Colonel Rhome died during the Civil War, and the oldest sister, Elizabeth C. Rhome, now lives in New York State.

An interesting recollection of Colonel Rhome is an overland journey of a thousand miles from his home in Georgia to a new home in Texas. Early in the '50's the father of the family decided to locate in the West, and he visited Texas, selecting Jacksonville, Cherokee County, as a promising location for a growing family. He returned to Georgia, and when the movement began it consisted of twelve or fifteen members of the Rhome family and their relatives; twenty or twenty-five slaves, and horses, wagons, dogs, and cattle—a caravan of considerable size, under command of the elder Rhome, with his sons as lieutenants. Byron was then seventeen years of age, and the long trip across Georgia, Alabama, Mississippi, and Louisiana into Texas, the State of adoption, is one of the pleasantest memories of his early life. Thus it was that a large part of the immense region west of the Father of Waters gained its population. There were no railways west of the river, and the tide of immigrants encountered a thousand dangers and inconveniences which are unknown to-day. The Rhome "train," as it was called, started for Texas November 5, 1854, and reached the end of the journey on the first of January. The mother of Colonel Rhome died fifteen years before and his father had married again. The travelers were supplied with flour, ham, bacon, sugar, and coffee, and as the young men were good shots and the woods abounded in deer and other wild game, the journey was in the nature of a hunting excursion. At night tents were pitched and all went into camp. Arriving at Jacksonville in the best of health and spirits, Mr. Rhome set earnestly to work building up a home on the frontier.

Colonel Rhome at the age of fourteen had entered a store and there gained the first lessons in practical business. His brother purchased in New York, goods for a general merchandising house, which was opened in Jacksonville by the father and sons. The wholesale point for purchase of goods was upon the Atlantic coast, and it required two weeks by the most rapid means of transportation then available, to reach the center of supplies. The journey required a trip by stage to Red River, by boat to New Orleans, to Mobile and Montgomery, by railway to Augusta, Richmond, and Fredericksburg, thence by boat on Acquia Creek to the Potomac, to Washington, and finally by steam railway to New York city. Many different lines were traversed, and it was necessary to buy a ticket and check baggage at each terminal point. The marvellous system of interchange of business now in vogue upon railway and water routes of the United States was not dreamed of fifty years ago, and two weeks was required for a journey now easily performed in two or three days.

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A Trio of the Rhome Herefords.

The elder Rhome died in 1875 at the age of sixty-nine years. At the opening of the Civil War he had acquired a fortune, and was the owner of 100 slaves. All his property was swept away during the four years of the conflict. Colonel Rhome served three years in the 18th Texas Infantry, entering the army as sergeant. During the last year he was in command of a company, as he had received a commission as first lieutenant and the captain was disabled by a severe wound, Lieutenant Rhome was recommended by the proper officers for commission as captain; but it was a long distance to Richmond; the dreary months of the closing of the tremendous conflict were dragging on; day by day the outlook grew darker, and it became a question of self-preservation. Few commissions were issued from the capital in those trying times. Colonel Rhome served in the division of General J. G. Walker, Trans-Mississippi Department, operating in Arkansas, Texas, and Louisiana. He participated in the battles of Mansfield, Pleasant Hill, and Jenkins' Ferry. At Bayou Beaubeau he was wounded in the leg, but soon recovered, and was again at his post. It was with mingled sadness and rejoicing that the western army received the news of General Lee's surrender. The soldiers had felt for months the hopelessness of the struggle; but never did men fight more valiently for a cause which the fortunes of war decided against them.

One of the duties of Lieutenant Rhome during the war was to canvass for clothing for the army. This led to the first romance of his life. While at home collecting and forwarding clothing in the summer of 1864 he met Miss Ella Lofton, and three weeks later they were united in marriage. The marriage was quietly celebrated August 31st, and to the pleasant surprise of those concerned the detail of the young officer was extended until the 1st of November. The army of the South lacked very many of the conveniences possessed by the Northern soldiers. Few of the soldiers of the Trans-Mississippi Department had uniforms, as the general government supplied uniforms only to officers. A vast amount of smuggling was in progress, and great wagon-trains carrying cotton were conducted under guard across Texas into Mexico. There the cotton was carried aboard steamers and shipped to Europe to exchange for army supplies. It required men of nerve and great resources to conduct the supplies into the South past the blockade, but at no time during the war were men of that character lacking. The emergency seldom fails to produce the man.

In the autumn of 1865 Colonel Rhome again embarked in business. He went North, purchased goods, and in company with two brothers-in-law started a flour mill, a manufacturing plant, and a system of stores at Etna, Smith County, and neighboring points. Experience demonstrated that the money made in the stores disappeared in the manufacturing plant, and after $30,000 had been swallowed up Colonel Rhome stopped the leak by buying out the entire business of the firm. He also engaged in farming, and in 1867 he imported the first registered Jersey cattle that were brought into Eastern Texas. In 1880 he disposed entirely of his holdings in Eastern Texas, as he had located on a ranch in Wise County, twenty-five miles from Fort Worth, where he decided to devote himself exclusively to the cattle industry, using high-class bulls and grading up his herd. He was one of the pioneers of that branch.

The wife of Colonel Rhome died in February, 1878, leaving three children—Byron C. Rhome, Jr., now in charge of the Rhome breeding ranch; Joseph O. Rhome, in charge of the sales ranch; and Ella Rhome, now the wife of Charles L. Woody, a promising attorney of Brooklyn, New York, and counsel for the Brooklyn Heights Railway.

On the 18th of March, 1880, Colonel Rhome was married to Miss Fanny C. Day, daughter of one of the pioneer families of Denton County, and a lady of rare domestic and social qualities. A son, Romulus J. Rhome, twenty-two years of age, a graduate of the Agricultural and Mechanical College of Texas, and of the Law Department of the State University, is the result of the union.

Colonel Rhome established his home in Fort Worth in 1897, where he expects to spend the remainder of his days.

The failure of a mercantile corporation in 1886, of which Colonel Rhome was a small stockholder, threw upon his shoulders a responsibility few men would have willingly assumed. By resorting to legal technicalities he could have escaped in a great measure from discharging the obligation, but Colonel Rhome's high sense of honor impelled him to meet every creditor of the firm, and he undertook to satisfy claims amounting to $65,000. It required years to remove the burden, but the work has been accomplished. This act is an index of the character of the man. Colonel Rhome has made it a principle of his life to assist deserving young men, and his genial temperament has attracted friends from almost every State of the Union. He has established a great business, which is yearly increasing and which is to be carried forward along the same advanced lines by his sons. For three years Colonel Rhome has been a member of the board of directors of the American Hereford Association, and he is an acknowledged authority on pedigrees. He is a member of the Confederate Veterans' Association, the Masonic Order, and the Christian Church. He prophesies that the population of Texas will double within the next twenty years, and the business outlook of the entire United States is, to his experienced view, the brightest the Republic has ever known. He anticipates steady growth with few variations. He has witnessed a great and most gratifying advance in general intelligence of the people during the last forty years, and in no department of activity does he anticipate greater development than in the work to which he has devoted so successfully a large part of his life—the live-stock industry.

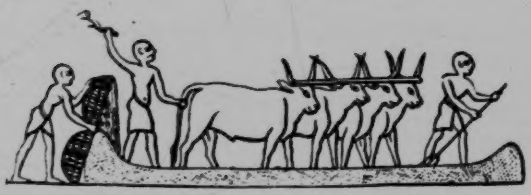
Domesticated and Wild Cattle.

Domesticated Cattle.—Idealizations of the Pastoral Life. —Value of Cattle to Mankind.—Their Place in Ancient History.—Specific Character of Cattle.—Derivation of Ours.—Extinct Wild Cattle of Europe.—So-Called "Wild Cattle" of England.—Cattle among Ancient Peoples.—Once the Standard of Values.—In Mythological Conceptions.—The Ox as a Working Animal.—Asiatic Wild Cattle.—"Wild Cattle" on Our Western Plains and in South America.—Domesticated Humped Cattle of Asia.—Asiatic and African Buffalo.—Early European Forms of Domestic Cattle. —The Cud-Chewing Function.—Period of Gestation of Cattle.—Their Comparative Intelligence.

Mankind long has associated cattle, more than any of the other domesticated animals, with the tranquil pastoral life that has been the ideal of happy and care-free existence since the childhood of the race. Even in our own times poets, as they have done for ages, make this life the theme of many of their songs, and myriads of other men have it in their day-dreams as the one in which they should walk always in paths of peace and quiet and content; and in these fond, but possibly erroneous, conceptions, their way ever is in green pastures, and they are led beside the still waters far from scenes of worldly strife and turmoil. In all this the sordid struggles of daily life are left behind, and thoughts of triumphs and of fame have no place.

Cattle themselves, if we exclude the sometimes aggressive bull, might be thought also to be influenced by considerations akin to these, and to have carried them into effect, for no more perfect picture of peacefulness and contentment ever lies before us than that in which we see a herd of these gentle creatures grazing afield, or reclining in shady places by the side of a stream that ripples through a grassy glade. Cattle appear to realize that only the country can afford them an abode suitable to their character and temperament, and that always they should figure in rural scenes; and a cow especially seems to be conscious that she is sadly out of place in a city. Of course an urban life is foreign to all of the traditions which our domesticated animals may treasure in their memories; but the horse and its kindred adapt themselves readily to it; the cosmopolitan pig can get along very well in it if there be plenty to eat; the sheep rarely has to endure it and is weak in spirit wherever it is; and the goat will stand it without unhappiness if it be given opportunities to climb. But no creature could be more forlorn than is a cow in the noise, bustle, and confusion of the paved streets of a city.

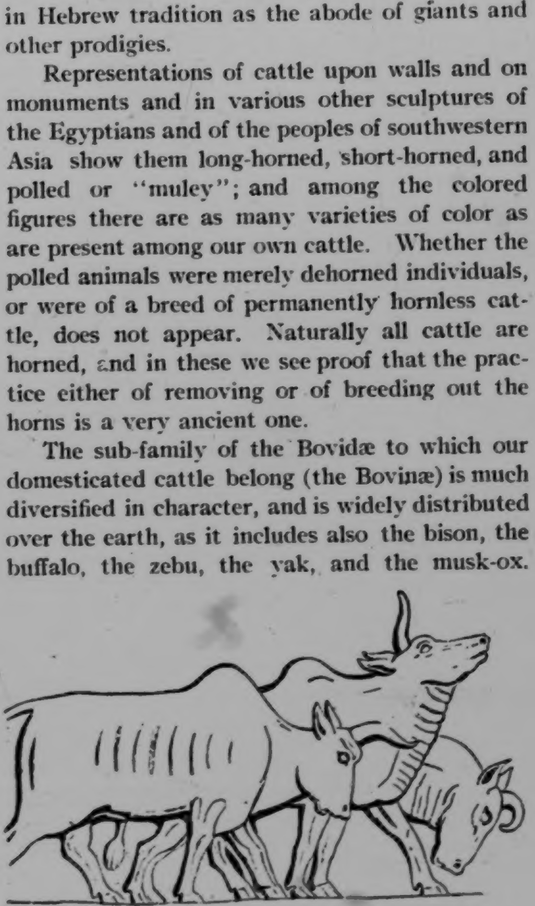
Whatever may be their relative value in our times as compared with that of either of our other kinds of domesticated animals, cattle were the most important to nearly all of the historic peoples of antiquity, although some, like the ancient Hebrews, from considerations other than those of practical usefulness, apparently attached equal, if not greater, importance to their flocks of sheep and goats. The bull, as we have seen, was highly exalted in the mythological conceptions of various old-time nations, but all the while they did not lose sight of the economic value of cattle. They might clothe a few individuals with a "sacred" character and set them apart, but they worked or ate many others. The Hebrews are represented as having, during the very early period of their history, in which they were wanderers, a large number of cattle; many more than after they had settled in Palestine, a country that was then, as it is now, owing to its generally rough character, better adapted to sheep and goats and asses. In the earlier chapters of Genesis the word "cattle" appears frequently, but evidently, as it is used there, it means the domesticated animals as a group, the first reference to oxen occurring in chapter xii. 16, where we are told that the Pharaoh had them among his live stock when Abraham was in Egypt. It is not said in terms that this patriarch brought cattle with him from Ur of the Chaldees to Canaan, but it is recorded (xx. 14) that oxen were included among the gifts made to him by Abimelech in settlement of the affair over Sarah. The Hebrews do not appear to have used cattle as work animals until after the exodus from Egypt, when they were employed for plowing, threshing grain, for draft, and for carrying burdens and riders. They were forbidden to plow with an ox and an ass together, probably because of the unequal size and strength of the two animals; and Samson's remark to his enemies—"If ye had not plowed with my heifer, ye had not found out my riddle," while used as a figure of speech relating to his wife, shows that female cattle also were made to work. The Hebrews did not castrate animals, but used them in their natural condition, and therefore their oxen were bulls. Their laws contained many favorable provisions and commands for the protection of their live stock, cattle especially, from misuse, abuse, starvation, and other forms of cruelty, and required that they should be fed liberally and allowed to rest upon the seventh day. The practice of stall-feeding cattle was followed as early as the time of Solomon, and according to the number he is said in I. Kings iv. to have needed for his daily barbecues, he must have had very large feeding-stables. But he takes occasion in one of his "Proverbs," that probably was based upon experience arising from his much-married state, to remind us that "Better is a dinner of herbs where love is, than a stalled ox and hatred therewith." In some parts of Asia Minor in early times there flourished a species of large wild cattle known to the people of Babylonia as the "re'em," or wild bull, which is supposed to have been closely related to the urus of ancient Europe and also to have had some connection with the old-world bison. The re'em is pictured and described on Assyrian monuments as a powerful, fierce-eyed wild ox with heavy curved horns, and of tremendous physical strength. Sometimes it was captured in nets or by snaring, and its chase, like that for the lion, was especially popular with the Assyrian kings on account of its hazards. The animal was known to the Greeks, who also hunted it, and evidently to the Hebrews as well. Isaiah refers to "a wild bull in a net"; and the Psalmist (xxii:12, 13) tells of bulls that compassed and beset him, and gaped upon him with their mouths, as a ravening and a roaring lion, and says that they were "strong bulls of Bashan," a country east of the Jordan that was famous in Hebrew tradition as the abode of giants and other prodigies.



Egyptian Cattle Treading Out Grain.
(From Rawlinson's "Ancient Egypt.")

Representations of cattle upon walls and on monuments and in various other sculptures of the Egyptians and of the peoples of southwestern Asia show them long-horned, short-horned, and polled or "muley"; and among the colored figures there are as many varieties of color as are present among our own cattle. Whether the polled animals were merely dehorned individuals, or were of a breed of permanently hornless cattle, does not appear. Naturally all cattle are horned, and in these we see proof that the practice either of removing or of breeding out the horns is a very ancient one.

The sub-family of the Bovidæ to which our domesticated cattle belong (the Bovinæ) is much diversified in character, and is widely distributed over the earth, as it includes also the bison, the buffalo, the zebu, the yak, and the musk-ox. The members of this group have permanent shell-like horns that cover bony cores, and usually the females as well as the males are thus armed. Anciently this sub-family existed in a wild state the world over, excepting the Aus-



The Re'em—Probably the "Strong Bull of Bashan."
(From Delitzsch's "Babel and Bible.")

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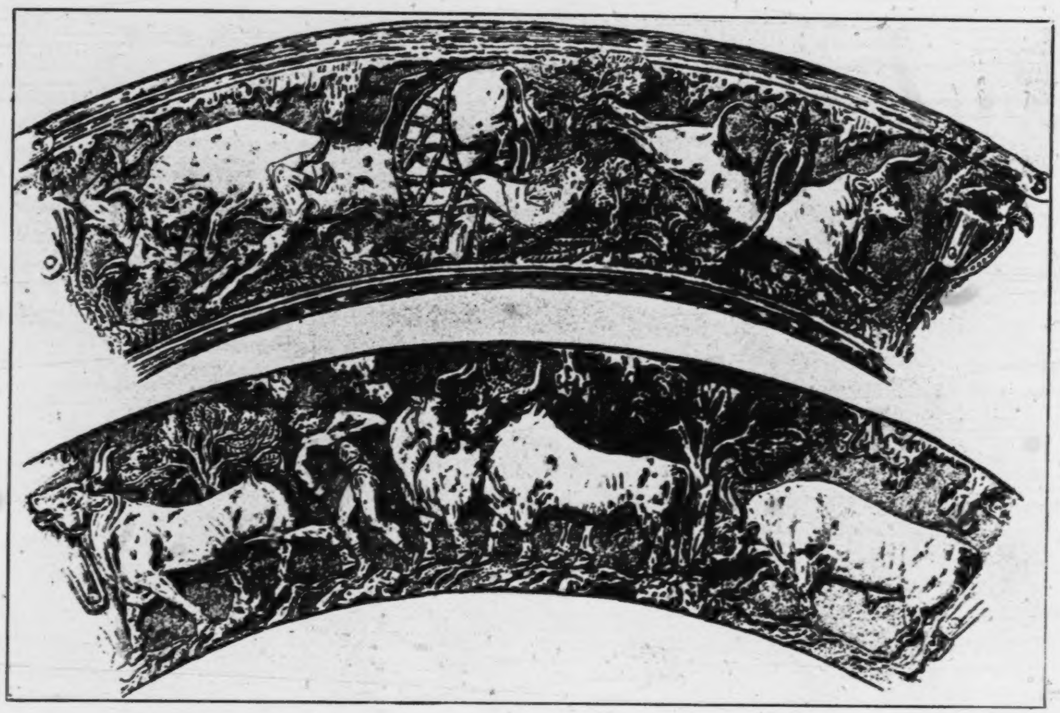
tralasian region, and a majority of its several species continue so to exist in various parts of the earth; and, as we already have seen, the remote ancestry of all was present in the late Tertiary times, both in the New World and the Old. The old genus, Bos, has been diversely subdivided by zoölogists, according to the structure of the hoofs, form of the muzzle, direction and shape of the horns, position of the knees, the beard in the males of some varieties, and certain minor differences.

The domesticated cattle have been so greatly modified and inter-blended by man that many varieties are presented, but all are alike in their intrinsic physiological character. Their distinctive characteristics are smooth, unwrinkled horns, broad and naked muzzle, wide space between the nostrils, large ears, flat forehead longer than it is broad, long and tufted tail, and broad hoofs. At their base the horns are projected sideways and then directed upward and in some breeds downward and forward with a semi-lunar curve; but the horns themselves differ so widely in the different breeds—the results of unknown ages of domestication—that no specific character can be founded upon them. In color, like the other highly cultivated domesticated animals, they run through nearly all the hues and shades from the plain black, white, and red, to brown, dun, gray, and even to bluish; and to every variety of piebald, mottled, spotted, flecked or brindled; the colors being, in varying degree, distinctive of some of the select breeds.



Very Ancient Greek Representations of Wild and Domesticated Cattle.
(*From Perrot and Chipiez's "Art in Primitive Greece."*)
The upper picture shows an attempt to snare wild cattle in a net, and also that the trappers came to grief. In the lower, a cowboy has "roped a steer" by one of its hind feet.

The line of the evolution of cattle can not, as already set forth in preceding pages, be traced so clearly or so far into geological antiquity as we can follow that of the equine group of animals, or that of the pig family; nor do we certainly know from what variety of wild cattle prehistoric man derived the original domesticated stock. Darwin makes plain the fact that modern cattle are descendants of species originally inhabiting the temperate zones of the earth, but the animals are so well adapted to easy acclimation that, under the fostering care of civilized man, they have become his companions in every part of the world in which he has established himself.

While the term "cattle" applies to all of the various races of domesticated animals belonging to the genus *Bos* (hence "bossy," as used soothingly by the milker of cows), they have been divided into two primary groups: the humped cattle, as the zebus (*Bos indicus*), of India and Africa; and the straight-backed cattle (*Bos taurus*), as our own, and which are common everywhere. By many naturalists these groups have been regarded as mere races of the same species, and it is a well-ascertained fact that the offspring from the crossing of the humped and the unhumped cattle are completely fertile; but the difference in their skeletons, outward forms, voices, and habits are such as to leave little doubt of their specific distinctness. The fact that the constellation Taurus bears the determinate name of the straight-backed species might, in view of the vast antiquity of that arrangement of stars, be taken as possibly implying that the first domesticated cattle were of this species.

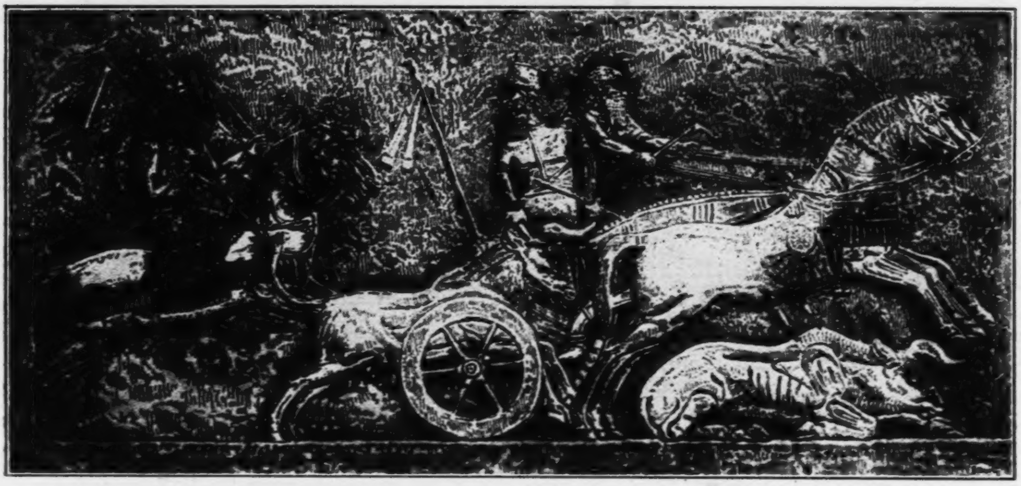
But whatever may have been the sources from which the first of the pre-historic domesticated cattle were derived, or the character of those brought into Europe by the Aryans, there can be but little doubt that these and other ancient people that inhabited that part of the world, domesticated the European wild cattle and added them to immigrant herds. It is probable, also, that the native stock gradually became predominant over that introduced by the Aryans, and that finally it absorbed the immigrant variety, and thus made the wild cattle of Europe really the principal source of the breeds introduced into America by the Spanish, English, and other early colonists here after the Columbian discovery.

From an unknown antiquity, down to about the beginning of the Christian Era, there flourished in the wooded parts of central and southern Europe the urus (*Bos primigenius*), a name applied to the animal by the early Romans, and which was derived from "ur," a root common to the Indo-European languages, and signifying "original," "primitive"; and which may be traced in the "thur" of Poland, in the "stier" (hence our "steer") of the Germans, and in the Latin "taurus," as also in various names of places in Europe, as the Canton of Uri (Switzerland), the Thuringian Forest, Turin, and Tours. The urus was a magnificent beast, as tall as a moose, and had very large wide-spreading horns that probably far surpassed anything of the kind ever produced in Texas. No doubt it was developed in rather open, park-like regions, where the land was moist and somewhat sparsely wooded, for cattle generally prefer such surroundings, and in the case of the urus its great spread of horns would have kept it out of densely forested districts. From the situation and condition of its remains in the *débris* left by the Lake-Dwellers of Switzerland this animal would seem to have been domesticated among the prehistoric people of Europe in an early period.

Another species of ancient European wild cattle was that of *Bos longifrons* (long-faced), which inhabited the northern countries of western Europe, especially the land of Sweden, and good authority holds that there is not sufficient reason for believing that it ever existed otherwise than domesticated in central Europe. Longifrons, which, unfortunately, has no every-day name, was smaller than the urus, and had short horns, and its habitat was probably among the grassy glades of the forest, where it browsed with the roe-buck and the fallow-deer. It seems to have been the most common race of domestic cattle among the ancient Lake-Dwellers and some other old-time peoples of southern-central Europe; and several of the modern breeds of Swiss cattle are believed to be its direct descendants.

The third and last of the species of European wild cattle that figure as the progenitors of our domestic ones was *Bos frontosus* (a name due to the form of its skull), which was somewhat larger than longifrons, with which it was contemporary in parts of the Scandinavian countries. Its remains have been identified with the European Lake-Dwellers of the Bronze Age, and some of them have also been found upon the sites of lake-dwellings in Ireland. Frontosus is regarded as having been the direct progenitor of the present "mountain cattle" of Norway, and probably also of those of the Northmen in Iceland and Greenland, and of such as those hardy sea-rovers are said to have brought to Massachusetts early in the eleventh century.

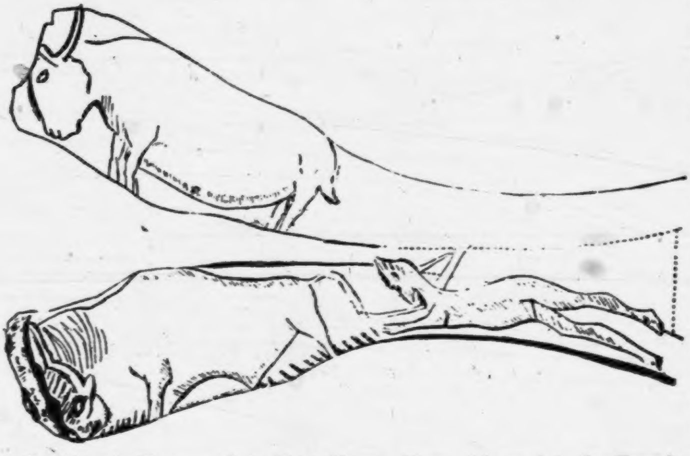
It is from these three species that all the domesticated cattle of Europe and, of course, those of America, evidently are descended. The urus appears to have abounded in central and southern Europe in ancient times. Cæsar describes it as existing in his day in the Xercynian Forest, in size almost as great as that of an elephant, but with the form and color of a bull. Most authorities agree in the belief that it became extinct about the beginning of the Christian Era, but it is said by a writer who lived in the early part of the sixteenth century that the species still existed in his time, and that the animals were favorite beasts of the chase. However, it is supposed that if these bore any resemblance to the mighty urus, they were offspring of domesticated descendants of the bovine monarch that had taken to a wild life. Indeed, it is probable that all of the so-called "wild cattle" that are said to have existed in certain mountainous regions of central and southern Europe later than the discovery of America, were either the descendants of domesticated animals or were of the aurochs species of bison, which is known to have lingered in Switzerland into the sixteenth century.



An Assyrian King Hunting Wild Bulls.
(From Houghton's "Natural History of the Ancients.")

In England and Scotland there still exist some so-called "wild cattle" that in earlier times were typified in popular speech as "the wild bull of the great Caledonian Forest." Their kind is said to have roamed in an ancient period over all of the wooded northern regions of the island—that is to say, over northern England and much of Scotland. It is said that in the early part of the nineteenth century there were fourteen herds of these cattle in existence in England and Scotland—kept upon large preserves within certain great estates. Of these nine herds have become totally extinct; their decline having been attributed to long-continued in-breeding. Of the remaining five, one is preserved in Chillingham Park—a remnant of one of the great forests of England—in Northumberland, while the others are at Cadzon (near Chillingham), at Chartley in Staffordshire, at Somerford in Cheshire, and at Kilmory in Argyllshire. It was formerly believed that these cattle were the unchanged descendants of the urus or of some similar species of wild cattle, and that they had come down without contact with any domesticated breed.

The animals of the several herds are much alike in the main, but the Chillingham cattle, which long have been very rigidly protected and are more commonly referred to, have been held to have the nearest relation with the true primigenious type. They number at present about sixty head, and are described as of medium size, compact in body, and of a dingy white, or yellowish-white, in color, except upon their ears, where the hair is brownish-red; the muzzle being brownish, the horns black-tipped, and the hoofs black. Some of the Scottish animals have, or had, black ears, a difference believed to have been characteristic of the Scottish race. Certain writers have said that the Chillingham cattle once had manes, but if this were so that appendage has entirely disappeared. Among these the typical coloration for many years has been maintained by killing any calf that showed deviation of color, as some occasionally do. The animals are timorous unless hard-pressed, and are disposed to graze by night; and the cows persist in concealing their calves in deep brakes of fern or in underwood, courageously opposing all approach to these lairs. These cattle are said to refuse to mingle with any other and to seek to avoid the presence of man.



Pre-historic Pictures of the Urus, Engraved on a Piece of Antler Found in the Duruthy Cave, in France.
(*From Dawkins' "Early Man in Britain."*)
The lower picture shows that the urus sometimes was stalked. A large bull is represented as feeding with his head down, while a naked man has crept up behind him and is in the act of throwing a javelin.

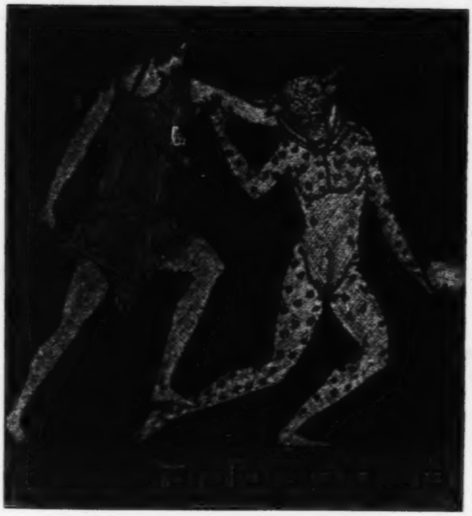
Their various peculiarities, and especially what was called their practically stable coloration, long were regarded as forming strong evidence that these cattle were not the descendants of domesticated stock relapsed into the wild state, as the latter persistently retain their variegated hues, which are the sure tokens of domestication and servitude. But it is now held that the remote ancestors of the existing animals must have been at least partly domesticated. It is pointed out that it is altogether improbable that they could be the degenerated descendants of the huge and majestic urus; that the occasional appearance of calves of varying color indicates that the coloration would not remain stable were the animals left to themselves; that their structural characteristics differ in no respect from those of domesticated cattle; and therefore that they are descendants of some old domesticated or partly domesticated breed that took to a wild life again and therein recovered many of the traits and habits of its truly wild ancestry.

As related heretofore, the Iberians who succeeded the cave dwellers of England, had cattle, as well as horses, sheep, swine, goats and dogs. The Celts, who overran Britain some seven or eight centuries before our Era, had, as we have mentioned, become rather extensive stock-raisers by the time they come into the light of history. Their principal wealth was in herds of cattle, and they moved from one part of the country to another for a change of pasture-land; their agriculture still being of the simplest. Private property in land was not yet recognized, and every tribesman had the right to pasture his cattle in the meadows. With the later coming to Britain of other continental tribes stock-raising increased, and as early as two or three centuries B. C. cattle and hides were prominent in the exports across the Channel in exchange for salt, articles of iron and bronze, together with cloth and pottery of finer grades than the islanders were able to manufacture.

Formerly it was supposed that the domesticated cattle of Europe might have been derived from the European bison, the aurochs, which yet survives, and to which some further reference is made in another section in connection with our account of the American bison. But permanent characteristic anatomical distinctions in the aurochs proved that this could not have been so. This animal also was at one time confused with the urus, but later knowledge confirmed the two as very distinctly different species.

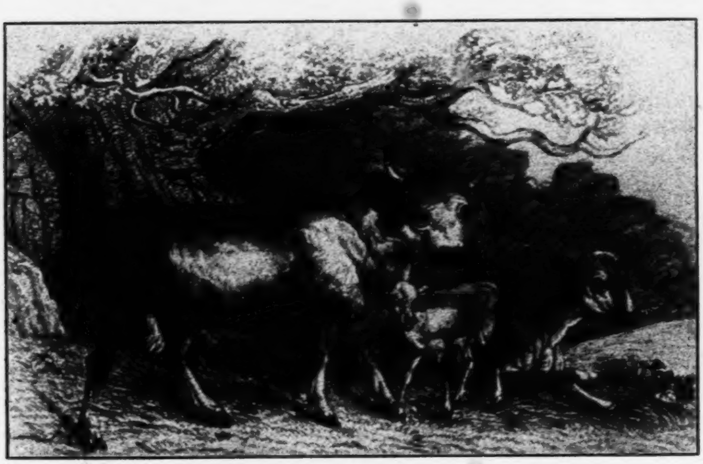
As we have seen in the first section of this volume, cattle appear to have been among the early domesticated animals, probably standing third in order, with the dog and the sheep ahead of them; and that they were foremost among the agencies that led to the development and growth of early civilization. Their study should be of especial interest to us, for undoubtedly they have filled a more important place in our own ancestral history than has any other species of animal. Our remote Aryan progenitors, from whom nearly all western civilized folk are descended, were cowboys almost to a man, and all their thoughts and energies would seem to have been centered upon their herds. This is shown in a curious way by the study of the early development of our language, examples of some of the results of which also appear in the first section. Evidently these people regarded their cattle as the only possessions worth ruling over, or talking about, or fighting for, and the origin and meaning of our word "daughter" makes it obvious that in the good old times these ancient ancestors of ours plainly did not take much account of young ladies who were not accomplished performers when seated upon the milking-stool.

Our Hindu relatives in race have, through unknown centuries, venerated, if not worshiped, the bull, and in their mythology it was the first animal created by the three divinities who were commissioned by the supreme deity to provide living creatures for the newly-made earth. The Hindus were forbidden by their religion to shed the blood of an ox, and the Egyptians might do so only for the purpose of making propitiatory and reverential sacrifices to their gods; but among the latter the interdiction was a theory that commonly had to give way to the practical needs of daily life. Both Hindus and Jews were restrained by the commands of their deities from muzzling the ox while it was treading out the corn; and to destroy this animal wantonly was considered by the Romans a crime against the public welfare, and was punishable with exile. We already have seen the important position the animal occupied in Greek, Roman, and other mythologies, but none of the conceptions heretofore mentioned were more strange than that of the Greek Minotaur, a monster with the head of a bull and the body of a man, but shown sometimes with a bull's body and a man's head. Poseidon sent this creature to Minos, who hid him in the Cretan labyrinth, where he devoured the Athenian youths and maidens that were required to be sent to him as a tribute every nine years Theseus, with the aid of Ariadne, slew him, and so ended this distressing state of affairs.



Theseus Killing the Minotaur.
(*From Carus' "Greek Religion and Mythology."*)

Among our distant ancestors the ox or the cow was for long ages the chief standard of values. Everything, from a new coat to a new idol or a new wife, was priced at so many cows, and so the currency was of a kind that did not constitute an "issue" in political campaigns, nor did it require either coinage or the fiat of the government to make it go. In these communities, as among many other primitive peoples in various parts of the world, an individual's wealth and importance were measured by the number and size of his herds of cattle; and the more he had the higher was his position as a local "magnate." In ancient primitive society the standing of the owner of large herds of cattle was like that of the modern holder of great quantities of valuable stocks and bonds; and our word "stock," as applied to certificates of ownership in corporate property, merely is a new application of a term the original meaning of which, as it continues to be in its more proper use, was "live stock." In the course of ages it became necessary for men to have a less bulky "currency" than oxen and cows, and therefore money, the love of which is said to be the root of all evil, was invented by some unknown genius of antiquity. After the introduction of metal coinage into ancient Greece, the old method of measuring values by oxen and cows was commemorated by stamping the image of an ox on the new money. In England in the time of John Wyclif (1335-1384), the great English reformer and first translator of the entire bible into English, and of Geoffrey Chaucer (1340-1400), the "father of English poetry," the word "catel" still was used in the sense of "wealth," of substance generally; and in our own times we continue this use of it in the slightly changed form of "chattel," by which we mean non-living personal property. Originally cattle probably were communal property; and were appropriated to individuals at a later stage than other movable goods. In the Roman law we find that they could be transferred only by the same forms as were required for the conveyance of land: being classed as "real" property.



The "Wild" Cattle of Chillingham.
(From Jardine's "Naturalist's Library.")

In some period far back in the night-time of human history men learned to use the ox for carrying burdens and for drawing loads. As a draft animal it has been used from immemorial time, and much of its work through all these ages was that of drawing the plow. According to the Roman mythology, this patient creature was reduced to that form of heavy drudgery in consequence of the wickedness of mankind. The earlier years of man's existence upon the beautiful and wonderfully fruitful virgin earth were times of unalloyed happiness. There was no occasion for labor, nor for provision for the future, for the earth brought forth spontaneously and continuously all that was needed for man's subsistence and for his comfort. "Innocence, virtue, and truth prevailed; neither were there any laws to restrict men, nor judges to punish." This period of human bliss in aftertimes was remembered in sorrow and with longing as the Golden Age, when the people lived in peace and plenty under the wise and beneficent rule of good old Saturn, and when toil and trouble were unknown. Unfortunately, nothing in this world is lasting, and so the Golden Age was succeeded by the Silver Age, in which men were crafty, insincere, and covetous; the good of all was not first in the minds of all, as before; the year then was first divided into seasons, and the blasts and dearth of winter first were known; and the people were obliged to labor to supply their daily needs.

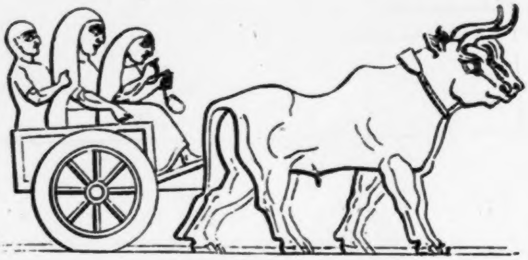
"Succeeding times a silver age behold
Excelling brass, but more excell'd by gold
Then summer, autumn, winter, did appear,
And spring was but a season of the year;
The sun his annual course obliquely made,
Good days contracted, and enlarged the bad.
The air with sultry heats began to glow,
The wings of winds were clogg'd with ice and snow;

> **And shivering mortals into houses driven,**
> **Sought shelter from the inclemency of heaven.**
> **Those houses, then, were caves or homely sheds,**
> **With twining osiers fenc'd, and moss their beds.**
> **Then plows, for seed, the fruitful furrows broke,**
> **And oxen labor'd first beneath the yoke."**
> *—Ovid (Dryden's Translation).*

We have pretty good evidence in other directions that all this happened a long time ago. We find among the words derived from cattle and from their use many that show plainly that oxen must have been employed for draft purposes at the time when such words originated. For example, the ancient Greeks spoke of the evening as "boulutos," or the time for the unyoking of oxen; and this same idea is expressed in the old German word for evening "abant" (modern, abend), or the unyoking.

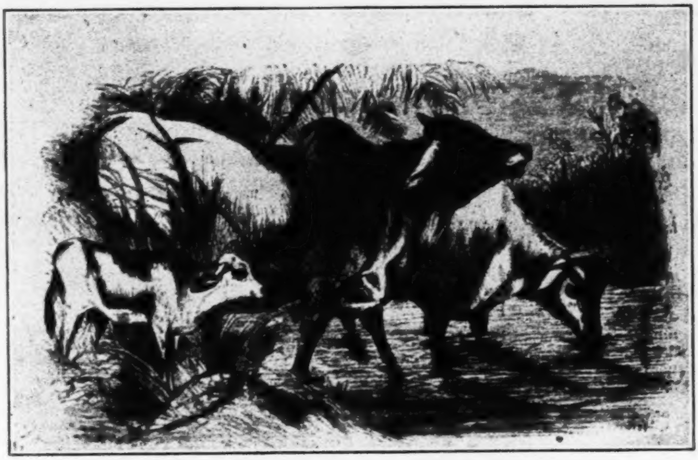
Until comparatively recent times the ox did practically all of the work of a draft animal among all the people of the earth who had any pulling or hauling to do, for, as remarked in a preceding section, it was within only a few centuries past that the horse was put to such uses. As the occupation and settlement of the United States advanced westward, the ox was the chief dependence of the pioneers, both in getting their belongings to their new homes and in preparing the soil for planting, in every westward stage of the progress. The patient but slow-footed beasts that dragged the wagons laden with the simple effects for the new home and conveying the women and children, were the same that broke the virgin soil after the destination had been reached. In later times, as the "commerce of the plains" developed and attained the great proportions it presented before the advent of the transcontinental railroads, oxen usually supplied the power that moved the huge "prairie schooners" that navigated our vast inland "grassy seas." In hauling heavy loads the ox proved itself to be a master of the business. Its patient temper and its strength at a dead pull made it far better fitted for this class of work than the more hasty and easily excited horse. But its career as a draft animal is near to its end in the United States. For lighter work the quicker-stepping horse has superseded it, and for the heavier, the traction engine that pulls wagons as well as plows is doing much of the labor that formerly was assigned to our old taurine friend. In France and in some other European countries the ox still is holding its place as a heavy worker, and in the lazy far East it keeps on scratching the soil with a primitive plow and treading out the grain just as its kind has done for thousands and thousands of years.

The ox has been hitched to its work in the world by what would seem to be upon casual observation the worst of all contrivances for the purpose—the yoke. Oxen work as draft animals in pairs, and the beam yoke rests upon the nape of the neck and is kept in place by a "bow" that passes around under the neck and is attached to the beam. It is an invention of unknown antiquity and was in use thousands of years ago practically in the same form as it is at present. It was this kind of yoke that was used by the Babylonians in King Hammurabi's time, about forty-two centuries ago. That wise potentate, as the reader will recall from an earlier section, decreed that if a man hired an ox and permitted the yoke to cut the nape of the animal's neck—which easily might happen to a young and uncalloused beast, or be caused by a badly-made yoke—he had to give the owner another ox just as good as the injured one had been. In Egypt and in India and some other Asiatic countries the head-yoke has come down from remotely ancient times, and is now in general use also in France and in Germany. Hundreds of Egyptian depictions show bullocks at work with this yoke. It is a bar of wood that rests upon the forehead and is held in place by cords or thongs tied around the horns; a rope or chain extending from the bar back to the plow or vehicle to be drawn, as with the beam-yoke. Instead of surging and straining as with the latter, the oxen push steadily for-



Babylonian Cart Drawn by Oxen.
(From Smith's "Bible Dictionary.")

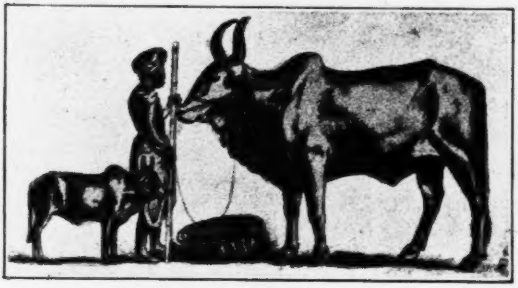
ward with the head-yoke and appear to get along with much less wasteful exertion. The ox is especially developed for pushing with the head, and in defending itself against its enemies and in fighting with its own kind it always has depended on the strength of its head, neck, and forequarters to make its horns effective. In modern times many humane persons have thought these primitive yokes to be barbarous and cruel, and therefore have devised and applied a harness of collars, or breast-straps, and tugs, to take their places, under a misconception of the history and habits of the beasts they thought to relieve. Much to the surprise of these well-meaning people, the oxen joined the practical ox-driver in protesting against this innovation, and unmistakably manifested an unwillingness to abandon the yoke and work in the new-fangled harness; and this is not the only example of the inborn conservatism of the ox.



Zebus—Bull, Cow and Calf.
(From Wood's "Illustrated Natural History.")

While all known wild cattle of Europe, and, indeed, all the truly wild varieties of the straight-backed group everywhere, long since disappeared, there are in Asiatic regions several species of or related to the hump-backed family, that still exist in the natural wild state. The curious Thibetan yak, or grunting ox, intermediate between the bison and the true oxen, that has a tail like that of the horse and very long hair hanging from the lower parts of its body, and that also is domesticated, is included by some zoölogists among the bisons. Excepting its high shoulders, hairy tail, and the growth of hair above mentioned, it is ox-like in appearance. In late Pliocene times representatives of this group existed in France and in Italy. In the island of Celebes there is a very pretty little creature, the anoa, or dwarf "wild cow" or "forest ox," having short straight horns directed upward and slightly backward, and which, by some authorities, is thought to be somewhat related to the ibex. In size it is about midway between a large goat and a cow. Another species of so-called "wild cow" is the gayal, which is distributed over the greater part of the islandic region from Java to the Indian Peninsula.

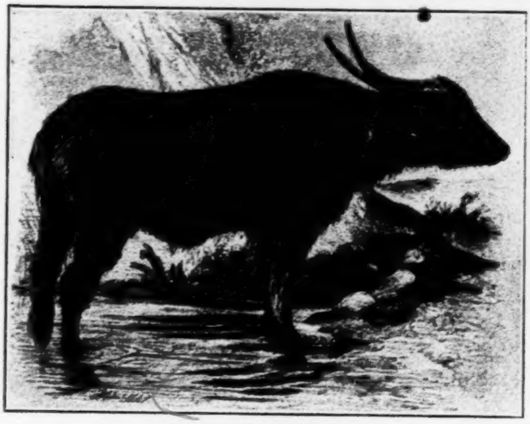
In the first half of the nineteenth century there was a popular belief in our country that large herds of wild cattle then flourished upon our western plains. These, such as they were, were descendants of Spanish cattle that had roamed out of Mexico, had not long been on the plains, and at no time was there a great number of them, nor were they widely distributed. Mainly they were confined within the limits of Texas, but it has been said that there were some in the southeastern part of New Mexico and in the southern part of the Indian Territory region of that time. They are not, however, reported to have wandered at any time as far north as the Arkansas River in Colorado and in Kansas; and the present writer has been unable to learn that they ever were seen so far north as the southwestern part of Kansas or the southeastern part of Colorado. Our cattle do not from choice remain in treeless or semi-arid districts, but prefer and therefore will seek river valleys and other localities where water is plentiful and where there is more or less wooded land. This wild stock originated in Mexico late in the sixteenth century, or about 300 years ago, after the invading Spanish people had settled down to peaceful pursuits and had become engaged actively in the settlement and development of the country they had conquered With the multiplication of domestic animals with which their settlements were provided there were, as with their horses, estrays and castaways of cattle. These entered upon a free life in fertile and well-watered valleys in Mexico and became the progenitors of the stock later known as the "native cattle" of that country. Ultimately some of this stock wandered into Texas, and from these emigrants sprang the wild cattle which, in former times, roamed at will in that part of the United States, and which eventually became more or less identified with the long-horned cattle of Texas that were typified by the "Texas steer," with which picturesque animal most of us are or have been acquainted.



Giant and Pigmy Zebus.
(*From Lockwood Kipling's "Beast and Man in India"*)

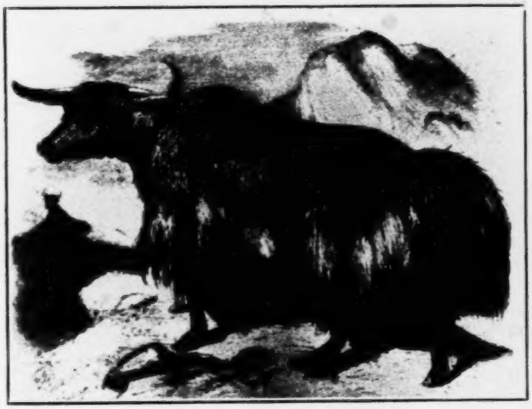
These "wild" cattle had developed a characteristic that was at variance with the common inclinations of their species, in that they did not go in herds, as a rule, but scattered themselves. A small group of cows having calves with them might associate for mutual protection, but the bulls were almost always found alone. All of these animals preferred to conceal themselves in the recesses of timber-growths and in chaparral, and seldom in a life-time wandered more than a few miles from their chosen haunts. The cow, except in defense of her calf, had become as timid as a deer, but the bull was warlike. While he would get out of the way if not threatened, the slightest provocation converted him into an aggressive and most dangerous enemy.

The Spaniards introduced cattle into South America before the middle of the sixteenth century, and prior to its close there were wild descendants of these animals ranging over the pampas in the central-southern parts of that division of the New World. The regions they occupied were especially favorable to them, and they increased until the herds became enormous in size. It has been asserted by several Spanish writers that these cattle all sprang from seven cows and a bull that were brought from Andalusia to the city of Assuncion in Paraguay about the year 1556, but this can hardly be accepted as a statement of fact, in view of the probability that other imported animals had easy opportunities to escape to a free life. There is at the present time a large number of these cattle still running wild, but their range is becoming more and more restricted, and their slaughter for their hides will exterminate them before many more years have passed. Fifty years ago their immense herds were distributed over a vast empire of country, but were far more numerous in the temperate zone—a fact which bears out the view taken by Darwin that our cattle are descendants of species originally inhabiting parts of the world having a temperate climate. These animals are above the medium size, long-legged, as varied in color as our domestic cattle, and have tremendously long and widely extended horns.



The Asiatic Buffalo.
(*From Wright's "Natural History."*)

The domesticated Asiatic relatives of our cattle present marked differences in form and characteristics. The more interesting of these animals are the zebus (*Bos indicus*), or humped cattle, now known only in domestication, and of which there are many breeds, varying much in color, and including the Brahmin sacred bull. Some breeds are reared for their milk and flesh and others for riding and for draft purposes. These humped cattle, or "Indian oxen," are found in greatest perfection in India, but they extend eastward to Japan and westward to the African Niger. They differ from our cattle not only in the fleshy hump on the shoulders, but in the number of sacral vertebræ, in the character of the voice, which is described as being "grunt-like," and also in their habits; and the breeds in India vary greatly in size. They seldom seek the shade, and rarely go into water and stand in it knee-deep, as our cattle are so fond of doing. They appear to have been brought under the dominion of man at a very remote period, as all of the representations of the ox in very ancient Hindu sculptures are of the humped or zebu form. This hump, which consists of solid fatty matter, is a more abrupt protuberance than that of the American bison, and proportionately is smaller than the latter. The zebu has curved horns of medium size and length, large drooping ears, a dewlap of fat, and a tail like that of our cattle. Its coat is smoother and thicker than that of our bovines, and altogether it is a handsome animal. The finest breeds of the zebu are found in the northern provinces of India, where they are used for riding, as we use horses—carrying, it is said, a man at the rate of six miles an hour for fifteen hours at a stretch. The Brahmin sacred bulls are white and are held in great reverence by the Hindus. When they have been dedicated to the god Siva by having his image branded upon them, they are thenceforth relieved from all labor. They go about without molestation wherever they choose, and may be seen at booths and bazaars helping themselves to whatever dainties they prefer from the stalls of the faithful.



The Yak.
(From Wood's "Illustrated Natural History.")

The Asiatic buffalo is quite unlike the American so-called "buffalo" in almost every respect, but bears near resemblance to our ox. It has flattened angulated horns inclined upward and backward, and exists both wild and domesticated over much of central and southern Asia. The "Indian buffalo" proper, which is a huge and rather morose beast, has a thick hide somewhat sparsely covered with coarse hair, but differs chiefly in the form of its horns, which are large, crescentic, and widely separated at the base; and in some individuals are of eighteen inches girth at the root and measure three or four feet around the exterior curve. These Asiatic buffaloes are in use for about all of the purposes to which working cattle are put, and the Indian variety also is extensively employed in Egypt, and in Italy, Hungary, Greece and other parts of southeastern Europe. As with almost everything else identified with Asia, these buffaloes have a history in domestication that runs back to and disappears in the mists of remote antiquity.

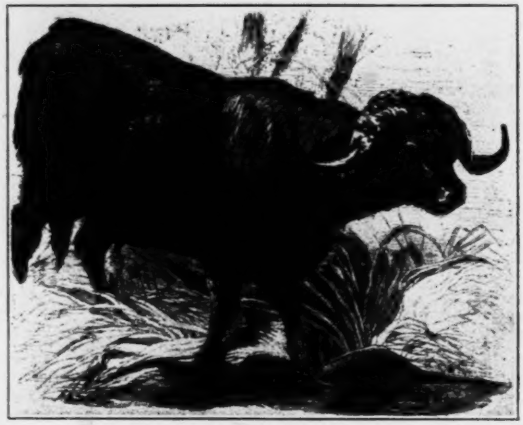
The Cape buffalo of South Africa is further from our cattle in general appearance than is the Asiatic species. It is stockily built, not so tall, and the bases of its horns are very large and broad and united, the horns giving the head a somewhat peculiar aspect. Like the Asiatic, the Cape buffalo prefers to live in marshy regions.

Evolution operating under natural conditions has produced species of animals and even varieties of species, but breeds of domesticated animals, as this term commonly is understood, are, in general, the results of man's intelligent control of his four-footed servitors. Varieties have, of course, been produced among domesticated animals without any special intervention by their master, but the distinctive breeds, as we know them, are the consequences of man's intentions intelligently applied. In the second volume we shall consider at length the origin and development of various modern breeds of cattle as they exist in the United States, and therefore at this juncture shall do no more than briefly to refer to the probable sources of certain early breeds developed in Europe and in Great Britain.

Of European continental forms the Hungarian is conspicuous from its great size and by the extent of its horns, which in some unusual instances have measured nearly six feet from tip to tip. There can be scarcely any doubt that in this breed we have descendants of the great urus of ancient times. The earlier Friesland breed and the Pembroke of England are believed also to have been derived from urus stock. The later Friesland and also the Jutland and the Holstein breeds of cattle usually were of large size, and these, it is said, were introduced into Spain by the Goths. It is further said that from these were descended the cattle which the Spanish colonists brought to America after the Columbian discovery and that they were represented in the herds of South American "wild cattle," and also in the Texas "long-horn," introduced by way of Mexico; but this opinion rests more upon conjecture than upon ascertained facts.

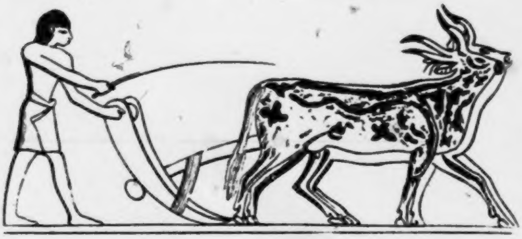
The British forms, for our purposes here, may be considered as consisting of three general classes—the short-horned, the long-horned, and the polled or hornless cattle. The short-horned are descendants of *Bos longifrons*, and as such are represented in greatest purity by the Welsh and the Highland cattle, which probably differ but little from some wild cattle known to have existed in Britain from the Neolithic Age to the close of the Roman occupation about the middle of the fifth century. These cattle and the ancient Anglican people were driven from the open country to the hilly and mountainous districts by the Saxon invaders, who probably brought with them the long-horned cattle, which were larger of body than the native short-horned, of a red and white color, and which are supposed to have given rise to the cattle of similar characteristics that flourish now in the lower and more fertile parts of England. The invading Saxon cattle are regarded as having been derived from the urus (*primigenius*) type. However, the long-horned and the short-horned varieties interbred freely, and in more or less of the modern common cattle the two strains are inextricably mixed. Polled cattle do not, strictly speaking, necessarily constitute a special breed, but are an artificial variety that may be produced in any breed by selection. The famous polled cattle of Galloway still had small horns as late as the middle of the eighteenth century, but by continuously breeding with bulls having the shorter horns, entirely hornless cattle resulted a few years later.

Owing to the absence of front or cutting teeth from the upper jaw, cattle are unable to cut off the grass as they feed, and therefore they seize it between the lower incisors and the upper jaw and tear it away by a movement of the head. The sound that is caused by this ripping or tearing process is familiar to all who have been near cattle when they were grazing.



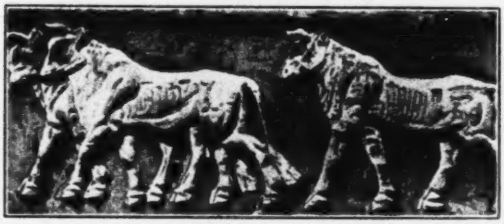
The Cape Buffalo.
(*From Wright's "Natural History."*)

The cud-chewing function that characterizes our domesticated and other horned animals is a very curious and interesting provision of Nature. It appears also to be a very satisfactory one to the creatures possessing it, and there are but few more perfect manifestations of contentment with the world than is presented by a cow lying in a comfortable shady place chewing the cud and apparently meditating upon abstract matters associated with her experiences in life. It is a function that was developed in distant geological antiquity, for, as we have seen in a preceding section, there are indications that the anoplotherium and the xiphodon of the Eocene period were the primitive ruminants; the xiphodon being the supposed progenitor of all horned animals, although it is not improbable that the anoplotherium in some way may have been identified with the proceedings. Rumination bears a relation to the instinct of self-preservation, for beyond any reasonable doubt it was an evolution due to the exigencies of wild-animal life. In the life of all wild creatures a constant warfare is waged by the carnivorous upon the herbivorous species, and in this bloody struggle, that went on in geologically ancient times as it does in our own, some animals, the early horse-like creatures, for example, learned from the tragic experience of their kind that they had a better chance for their lives in taking to their heels than in facing their enemies and submitting themselves to the fortunes of battle; while others, such as those from which our domestic cattle were evolved and which were not so well adapted to fast running and also were more timid, secluded themselves as much as possible, and depended more upon concealment than upon their legs to escape the attacks of their hungry foes. It is obvious that these would be the recourses of animals that were becoming herbivorous in their habits, for the tendency of a vegetable diet was toward making them less pugnacious, and therefore less inclined to stand and fight; and it also impaired the taste and weakened the desire for flesh, which aptitudes were, of course, the pressing causes of the conflicts. While the horse species decided to trust to their legs and to their endurance in running, those which developed into ruminants, and which in that stage of their evolution were without horns or other weapons of defense, resorted to seclusion in the groves and woodland for such a measure of safety as was possible under under such conditions of life. They were obliged to graze rapidly, for however abundant the vegetation they acquired the habit of feeding upon it hastily and then fleeing for their lives to a secluded place of comparative safety, although their losses must have been heavy in spite of all they could do to prevent them. This mode of life was followed by inevitable physiological consequences. The vegetable food thus rapidly gathered, was but slightly masticated, and therefore was received into the stomach in a condition unfit to be digested and assimilated. Accordingly, when the animal had fled to a place of safety, with its stomach full of very coarsely masticated food, physiological necessity led to the development in it of a new and special function— that of regurgitating its food in successive portions back into its mouth, there to undergo a complete process of mastication, to fit it for ultimate digestion. This regurgitative act necessarily induced anatomical changes in the stomach itself. This organ, which in its original form was a simple muscular sac, began to dilate its walls under the stimulus of its new uses and new functions, and to change its simple form into one of a complex type. Finally it developed into the remarkable compound stomach of the ruminating animal, that is so perfectly adapted to its special, complicated, and extraordinary functions.



Egyptians Plowing with Cattle.
(From Champollion's "Egypt.")

The stomach of a ruminating animal is divided into four compartments—the "rumen," the "reticulum," the "leaflet," and the "caillette." The food passes, practically without mastication, into the rumen, next into the reticulum, thence back through the œsophagus (the gullet) to the mouth, where it is chewed; thence it passes down the œsophagus a second time and enters the leaflet, and thence into the caillette, or true stomach. The mechanism by which the food goes through the same orifice at the lower end of the œsophagus, at one time into the rumen, and at the other into the leaflet, may well occasion surprise. The œsophagus is continued below in a tube with a slit on the under side, the lip-like edges of which shut water-tight, forming a passage from the œsophagus to the leaflet. If, however, the mouthful of food swallowed be large and solid, as it is when the animal is grazing, it distends the tube, and, separating the edges of the slit, falls through the opening and into the first stomach; but if the mass be soft and pulpy, as it is after having been re-chewed, it does not force apart the edges of the slit, and so reaches the third stomach. Here it undergoes further preparation and passes directly into the fourth stomach, in which the actual process of digestion is carried on. The mechanism for conveying the unchewed food in the first stomach back into the mouth also depends upon the slit, with its lip-like edges, in the tube-like extension of the œsophagus. The contraction of the walls of the rumen presses a part of its contents against the outside of the lips, which, opening, suddenly contract and thus pinch off a portion, and, compressing it into a ball-like form, present it to the œsophagus, the fibers of which, successively contracting from below upward, impel it forward into the mouth. Thus the strange process of rumination goes on by the operation of a physiological mechanism that is from one point of view one of great complexity, but from another wonderfully simple.



Very Ancient Sculptured Representation of Assyrian Oxen.
(From Houghton's "Natural History of the Ancients.")

In cattle the period of gestation is nine months, and usually but one calf is produced; occasionally, however, two are born, and when these are different sexes, the female almost invariably is sexually imperfect and therefore barren. In England such an animal is called a "free-martin"—a term that is not in common use in the United States—and means a cow free for fattening. "Mart" is an old provincial English and Scotch abbreviation of "Martinmas," and meant a beef or other animal slaughtered at Martinmas-time, which was a festival in honor of St. Martin of France (about 316-400) and that took the place of an old pagan festival, and was celebrated on the eleventh day of November, but which is not commonly observed now. "Free-martin" would seem to imply that in old times a barren cow bore some special relation to the festival other than that of being killed and eaten, but if this were so, the significance has been forgotten.

Cattle mature at about two years of age; and their full natural term of life is about eighteen years, but the practical demands of our times in the United States rarely permit any of them to live so long. The slaughter-pen ever yawns for them, and its gates, figuratively speaking, do not swing outward.

"Neat cattle" is a term that is commonly used in England, but only occasionally heard in the United States. When the word "cattle" is applied in the broad sense as including all live stock kept for use or profit, "neat cattle" means cattle proper—bulls, steers, cows, and calves. The term is said to have originated from the characteristic cleanliness, neatness, and nicety of cattle, but this is open to doubt, for the word "neat" is in itself an old and obsolete Anglican name for cattle, and not one that is merely descriptive of them.

Cattle, and especially the working-ox, long have been regarded as dull and stupid animals. To be ox-like is, in popular application, to be heavy and sluggish of mind; and to have "no more spirit than a cow" implies deficiencies that sadly weaken human character. This reproach is true, in a general way, of such breeds as are reared solely for fattening and slaughter, but it does not lie with full force against the species as a whole. In the narrowly limited extent to which it has been found necessary to train the cow to adapt herself to her simple alleged duties to man, she has done fairly well; and young oxen readily acquire understanding of the few terms bawled at them by their driver. Wherever, indeed, the ox is employed as a beast of burden or of draft, and it is so employed in most countries, the intelligence it manifests, while inferior to that of the horse, is by no means of low degree, and it surpasses that animal in docility and in the patient endurance of toil.

Our cattle so long have been domesticated, and have become so habituated to being protected and cared for by man that they have lost much of the natural wit and alertness that no doubt were well developed in their wild ancestors. This is indicated in the feral cattle of South America, which have, to a considerable extent, recovered these qualities. In them are represented certain consequences of a wild life that covers a period of more than 300 years, and which are manifested in their sagacity in avoiding threatened dangers, and also in their habit of combining to meet and fight a common foe.

However, the ruminating animals as a class do not seem to be so intelligent naturally as are many of the non-ruminating, notwithstanding the abundant time they have for reflection and for expanding their minds while tranquilly chewing the cud. Cattle, and sheep and goats also, obviously are deficient mentally in comparison with the horse, or even with the pig in a less exacting examination; at any rate, they have proved so in all attempts to train them to be "performers" in public—as, for example, in "the circus arena." Much time and patience have been expended by men of large experience in training animals for such purposes upon what were supposed to be promising young bovines, but, as far as the present writer has been able to assemble the facts, without successful results in any instance. While "educated horses" have won vociferous applause for their polished accomplishments, and "learned pigs" have received enthusiastic admiration for their erudition, cattle appear not to have a single corresponding triumph standing to their credit.

Hon. Francis Emory Warren.

The title of "Father of National Irrigation" has been bestowed upon Senator Francis E. Warren, of Wyoming. Others urged the importance of national aid for irrigation, and talked and wrote upon the subject, but it was Senator Warren who secured the first Government appropriation for irrigation.

This appropriation, though insignificant in amount, was the entering wedge which opened the way for the important measures now in force. It provided for the expenditure of $5,000 to be used for the examination of sites and for a report upon the desirability and practicability of the construction by the general Government of reservoirs and other hydraulic works, with the object of reclaiming semi-arid lands of the West. This action, accomplished in the face of bitter opposition in the closing hours of Congress, was hailed with joy by the thousands of intelligent citizens of the West who were familiar with the conditions existing in an immense territory, and foresaw the intestimable blessings that would follow after the Government was once enlisted in a definite policy of land reclamation.

The appropriation was inserted as a rider to the River and Harbor Bill, and the work was placed in the charge of Captain Hiram M. Chittenden. His report concerning surveys and sites for reservoirs in Wyoming and Colorado, at once attracted favorable attention throughout the county; new friends gathered around the banner; and, later, when President Roosevelt heartily indorsed the principle, national aid for irrigation became a settled policy at Washington.

It is now acknowledged by competent authorities that this was one of the most important and far-reaching steps on the part of the Government that has been taken since the Civil War. It assures the reclamation of immense areas of land by means of conserved flood waters, and homes for millions of people yet unborn. It may require a quarter of a century to bring the present plans to accomplishment, but the necessary funds will be raised by sale of the lands, and it has already been fully demonstrated that the plan is entirely feasible.

Senator Warren was peculiarly fitted to be the instrument by which this great work was inaugurated. He is distinctly a Western man. A native of Hinsdale, Massachusetts, where he was born June 20, 1844, he reached the Rocky Mountains in 1868, and has spent thirty-six years in the West. President of the National Wool Growers' Association, and a live-stock man from the time he entered into active business, he has contributed in a large degree in reconciling the various elements and in giving stability to the industry. No man is more welcome at meetings of live-stock men; and as a public speaker upon all subjects pertaining to the industry he has no superior. Having been personally conversant with the range industry from the time it made its advent upon the plains, he is one of the best-informed live-stock men living. Three times Governor of Wyoming, twice under its territorial form and once regularly elected, and three times elected to the United States Senate, he has exerted a wide influence for the commercial, industrial, and moral growth of the West, and his influence has extended until to-day it is wider than ever before.

The history of Wyoming can never be written without a generous acknowledgment of the work accomplished by Senator Warren, as he has been one of the foremost citizens in advocating the resources and advantages of his chosen State. Being in close touch with the national administration, he has succeeded in gaining favors for the State rarely accorded; and as a politician he is one of the most popular men Wyoming has known. A pleasing address and a practical education, largely acquired by contact with men, have contributed to this result.

Senator Warren was born upon a farm. His ancestry extends to the Pilgrim Fathers of the New England shores, and his early advantages

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of book-learning were limited to a few months each winter at the country schools, supplemented by a brief but thorough academic course. At the age of fifteen he secured work with dairymen in Windsor and Savoy to obtain means to pay expenses at Hinsdale Academy. At the breaking out of the Civil War he enlisted in the 49th Massachusetts Volunteer Infantry. As a private soldier and non-commissioned officer, he was with his regiment at Plains' Store, Donaldsonville, and in all the engagements at Port Hudson. During the siege of the latter place the 49th and some other regiments were ordered to furnish a contingent of two volunteers from each company for the dangerous duty of preceding the column of attack and filling up with fascines the broad, deep ditch in front of the enemy's breastworks. Warren was one of the the volunteers. As the "forlorn hope," as it was termed, marched upon the field, fire was opened upon it from all of the opposing batteries and the loss was terrible, a very large percentage of the detachment being killed or wounded. In later years Congress and the President recognized the part taken in this affair by Mr. Warren, and awarded him the Congressional medal-of-honor for exceptional gallantry in battle.

The war proved a good training-school for the Massachusetts boy, and he came out of the conflict with a trained judgment and a strengthened will, two of the most important elements in the formation of character. Fortune had in store high honors for many of the faithful soldiers of the war, and in many cases, indeed, these honors were rightly deserved.

Upon being mustered out of service, Mr. Warren returned home, where he entered the employment of George T. Plunkett as superintendent of his thoroughbred stock farm. Here he received a valuable training in handling live stock. The building of the Pacific Railway attracted wide attention in the East, and many ambitious young men were looking westward. Mr. Warren resigned his position early in 1868 and became one of the great army that sought homes in the West. He was then twenty-four years of age, and had gained a confidence in himself which made him competent to perform any duty he might undertake. He first engaged as an assistant superintendent of track-laying on the Chicago, Rock Island & Pacific Railway, then building from Des Moines, Iowa, to Council Bluffs on the Missouri River. The railway development of the West had started, although but few men of that period dreamed of the vast systems that have since been constructed and the mighty impulse the railway would give remote regions of the continent.

The new-comer from the Atlantic coast caught a gleam of the coming glory of the West, and in June, 1868, he accepted the invitation of an old friend, A. R. Converse, of Windsor, Massachusetts, to take charge of the latter's mercantile business in Cheyenne. At this time Cheyenne was a motley collection of tents and rude huts on the plain, and many thought it would share the fate of other settlements of the advancing line of the Union Pacific Railroad and would quickly vanish as work on the railway progressed. Mr. Warren entertained a different opinion, and there he decided to take up his permanent abode. The test of time has proven that his decision was correct. Cheyenne is now one of the attractive and flourishing cities of the Rocky Mountains, and each year adds to its stability as a center for culture and wealth.

In 1871 Mr. Warren became a partner of his employer, and the firm for six years was Converse & Warren. At the expiration of that time he purchased Mr. Converse's interest, and the style of the firm was F. E. Warren; later, F. E. Warren & Company; and still a few years later the business was enlarged and incorporated under the title of F. E. Warren Mercantile Company, which, until 1903, conducted one of the largest mercantile establishments in Wyoming.

Between 1873 and 1883, Mr. Warren devoted much time to raising sheep and cattle, and in 1883 he organized the Warren Live Stock Company, which is now one of the few remaining large live-stock concerns. At times its holdings have included as many as 126,000 sheep, besides horses and cattle. In addition to his live-stock interests Mr. Warren is identified with the Cheyenne Light, Fuel and Power Company as its president and majority-stockholder, and has extensive real estate and other interests in Cheyenne.

By taste and inclination a man of public spirit, Senator Warren has, from the time he located in the West, been interested in all of the great movements having for their aim the development of the Rocky Mountain region. Equally at home in live-stock and business circles, he has also devoted a great deal of time to politics, and has represented his Territory and State in a number of capacities. In 1872 he served the city of Cheyenne as Trustee, and before he was thirty years old he was elected to the Territorial Legislature, serving as President of the Upper House. He declined the nomination for Congress in 1884, the honor being unanimously tendered him by the Republican party, whose banner he has uniformly upheld. For six years he filled the position of Treasurer of Wyoming, and in 1885 was elected Mayor of Cheyenne. While at the same time filling three official positions, he was appointed Governor of the Territory by President Arthur. The anti-Chinese riots at Rock Springs attracted the attention of the entire country, and the decisive action of the Governor in protecting the Chinese citizens of Rock Springs and Evanston won many commendations from friends of law and order. On account of his criticism of the policy of United States Land Commission Sparks, Governor Warren was removed from office by President Cleveland. However, he was reappointed by President Harrison in 1889, and filled the office until 1890, when he was elected Governor at the first State election held after Wyoming was admitted to the Union.

From this time Senator Warren has occupied an important field in politics of the State and the Nation. At the first meeting of the Legislature of the new State, Governor Warren and ex-Congressman J. M. Carey were elected United States senators. They were sworn into office December 1, 1890. The terms were decided by lot, and Senator Warren drew the short term, which expired March 4, 1893. The Legislature of 1893 was divided into three parties, none of which could muster a majority, and no senator was elected until 1895, when Senator Warren received, without caucus, the unanimous vote of the Republican members—all but three of the total membership of the Legislature. At the expiration of his second term in the United States Senate he was elected as his own successor for the term which will expire March 3, 1907.

In the course of his long political career he has been many times member or chairman of the Republican State Central Committee, and chairman of the Wyoming delegation to the Republican National Convenon. An ardent protectionist and an undeviating supporter of the national Republican party, Senator Warren has exerted a strong influence in his own and adjoining States for the support of the policies upon which leaders of the party are united.

Senator Warren occupies a place as one of the busiest workers of the United States Senate. He is chairman of the Committee on Claims, second member of the Committee on Military Affairs, fifth member of the Committee on Appropriations, third on Agriculture and Forestry, second on Public Buildings and Grounds, second on Audit and Control of the Contingent Expenses of the Senate, and second on Irrigation and Reclamation of Arid Lands. The amount of work required by these duties is enormous.

As intimated above, the forensic platform has charms for Senator Warren, to which he has readily yielded, and his addresses upon the floor of the Senate, the noblest field in America for a gifted speaker, command a wide audience, and have effected marked changes in opinions of men whose minds open were to conviction. He lays no claims to flowery oratory, but is direct, incisive, and business-like. His address in 1896 upon the preservation of our herds and flocks was to many a revelation, and made a deep impression upon tariff legislation. The tabulated statements made in that address furnished the basis for Republican campaign speakers all over the country. No man was better able than the Senator from Wyoming to prepare and present this formidable argument, and no man has been more alert to the vital interests of the range and the farm. The amount of information he has collected upon these subjects, and the readiness with which he throws it off in public discussions, is astonishing. The reason is because he has made these subjects the study of his life, and his whole heart responds to the call of the live-stock interests. In the Fifty-fifth Congress his speech advocating army reorganization attracted the attention of all persons interested in military matters, and numerous addresses upon irrigation and reclamation of lands, have made him one of the most prominent factors in Congress in shaping land legislation. Few speakers surpass Senator Warren in ability to arouse the interest and hold the attention, and a certain characteristic frankness of utterance creates an impression on the listener that is not easily eradicated.

Senator Warren was married January 26, 1871, to Helen Maria Smith, of Middlefield, Massachusetts, daughter of Hon. Matthew Smith of that place, and Maria Smith, nee Root. Mrs. Warren died March 28, 1902.

Senator Warren's family now consists of two children—Helen Frances, who is a graduate of Wellesley College, class of 1903; and Frederick Emory, of the 1905 class of Harvard University.

The following extracts from one of the addresses of Senator Warren upon the arid-land problem present an idea of the magnitude of this subject, as viewed by one who has made it a thorough study:

"It is a striking and interesting fact that many prosperous nations of people, those furthest advanced in the arts, the sciences, and in sculpure, had their rise and existence in the arid region, the peculiarities of climate as well as the stringent economic features present, tending to produce people of exceptional energy and ability.

"The ancient cities of Ninevah, Babylon, and others were built in the arid region, being developed and supported by the practical application of irrigation. These have been striking examples of what has been accomplished in the way of economic development in times past—unimportant examples as compared with all the vast sum that history records in this particular.

"In Egypt is to be found a remnant of one of the oldest and most wonderful nations which ever has existed in the history of the world. Without the aid of the waters of the Nile, those sandy plains would have been but the most barren desolation; with it, the desert sands were mustered to the comfort and sustenance of mankind throughout the almost countless periods of time, and to-day 3,000,000 acres still produce with unfailing fertility.

"China has had its artesian wells, for irrigation, more than three thousand years, and very large portions of that wonderful empire are absolutely dependent upon irrigation, and it supports a denser population than any other nation of the world at this time.

"Arabia's table-lands support 12,000,000 people who subsist upon the fruits of a soil which would scarcely support life at all without the artificial application of water.

"Algeria has little or nothing more than a desert waste of soil, and yet some 12,000,000 acres of this apparently valueless land is made to produce largely by the application of water.

"In Southern Africa are large areas of land reclaimed by the artificial use of water. Also in Australia and Southern Europe; in Mexico and in South America.

"In India it is estimated that not less than 30,000,000 acres of otherwise desert lands are made, by the practice of irrigation, to support a dense population.

"It has been estimated by competent authoities that outside the territory of the United States of America, in various countries of the world, there are under irrigation 138,250,000 acres of land supporting, in the main, 800,000,000 people.

"History has demonstrated that with the best land, thoroughly reclaimed and under a reliable system of irrigation, a family can be supported upon the products of as low as 5 to 10 acres of land. If 20 acres be taken therefore as the average area of an irrigated farm capable of supporting a family, the estimated 100,000,000 acres irrigable land of the United States would furnish homes for 5,000,000 families.

"Coming down to the present limits of the United States, irrigation is no new nor minor subject. New Mexico and Arizona bear evidence of the existence of irrigating canals and also of immense storage basins, constructed for the purpose of impounding surplus waters. They were built far back in the uncertain ages of the past, connected in history with the mysterious cliff-dwellers and mound-builders of that section.

"Undoubtedly the Pacific Railroad grants have called forth the most severe criticisms; but if it had not been for these subsidies the great transcontinental lines would not have been completed for many years, and the vast territory west of the Missouri River would have remained almost a wilderness. The land granted would have remained practically of no value either to the Government or to the people.

"The building of the Pacific roads made possible a reasonably satisfactory solution of the Indian problem, saved the country millions of money in transportation of Indian and military supplies, bound the Pacific and Atlantic States in close union, made sure the settlement of a country rich in agriculture and mining possibilities, employed thousands of men, and helped to make the Nation richer and more prosperous in times of peace and stronger and better prepared in case of threatened war.

"Mr. President, more than two-fifths of the total area of the United States is contained within what is commonly known as the arid region. Nearly all of this section absolutely requires the benefits of irrigation in order to insure the successful practice of agriculture. No further statement than this ought to be necessary to demonstrate to thinking men the fact that the reclamation of the arid lands is not a small and insignificant or a sectional matter. Not only is it of national importance, but in comparison with no other single factor of our national progress does it assume insignificant proportions. It is a burning question and it will not down. It is important because the public domain outside the arid region is narrowing to small proportions.

"An eloquent citizen of New England once made the laudable boast that not a drop of water in his State ran to the sea without having its usefulness trebled by being made to turn the wheels of industry.

"In the arid West every drop of water that flows from the mountains to the sea that is not utilized for irrigation is like so much gold dropped into the bottom of the ocean and irretrievably lost; for, if spread upon the soil, water will enhance the value of land and create national wealth, as surely as does gold taken from the mines of the mountains add to the volume of our money.

"The men that have done the most to facilitate progress and growth in the world are those who were willing to depart somewhat from established rules and dogmas, as such restrictions grew too narrow, and to accept new and more progressive methods, departing largely or even wholly from established precedents and practices.

"Then let us enter earnestly into the work of the reclamation of arid lands of the United States, and, if necessary, devise sweeping and effective legislation upon the subject."

Domesticated and Wild Sheep and Goats.

Great Antiquity of the Domesticated Sheep.—Theories of Its Derivation.—Its Close Alliance with the Goat.—Differences Between the Two.—Specific Characteristics of the Sheep.—Existing Species of Wild Sheep in the Old World.—The Rocky Mountain Wild Sheep.—Great Variety of Character Among Domestic Sheep.—Strange Characteristics in Certain Old World Sheep.—Habits of Sheep.—As Working Animals.—Their Chief Utilities.—Qualities of the Wool.—Generative Functions of the Sheep.—Susceptibility to Congenital Variations.—Domesticated Sheep in Ancient Europe and England.—The Sheep in Sentimental Associations.—The Goat and Its Kindred.—Its Physical Character.—Wild Goats of the Old World.—The Rocky Mountain Wild Goat.—Derivation of the Domestic Goat, and Its Varieties.—Fruitfulness of the Goat.—Evidences of the Antiquity of Its Domestication.—The Scape Goat

As with nearly everything that is old, the history of the domesticated sheep very early in its backward course leads us into Asia, where it becomes lost in the shadows of antiquity. There is scarcely any sound reason to doubt that in this animal we have the one that was domesticated by man next after he had tamed the dog, although the goat as a candidate for this honor has a few partisans. But all of the species of tame goats retain the disposition and habits of their wild relatives to a degree much greater than is characteristic of domesticated sheep; a circumstance that is regarded by most authorities as indicating that they are not so far removed in time from the wild life of their ancestry as are the sheep, which conclusion is supported by the physical differences between wild and tame sheep that are far greater than those which separate the tame goats from the wild ones. While the existing species of wild sheep will fight heroically when they have to defend themselves and their young, they are not of so pugnacious a disposition as are the wild goats, and the lambs of some of them occasionally have been domesticated in modern times, which does not appear to have been the case with the goats. Therefore it is probable that primitive man found the wild sheep of his time more easily tamed than were the goats; and certainly they were of greater use to him than the latter could be.

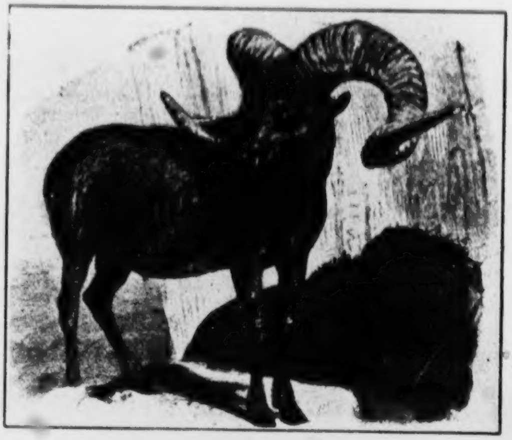
Man had brought the sheep and our other domesticated animals into captivity to him ages before he had learned to make records of his achievements, and by the time he had acquired this accomplishment he had either forgotten when and how he had subjected wild creatures to his service, or had become so familiar with having them about him that he attached no historical importance to the event of their domestication that wrought so great a change in the lives and fortunes of his kind, even if he had retained any traditional knowledge of it. However, we know from existing records that sheep, as well as the others, were in use all of 7,000 years ago for purposes identical with those for which they now serve us, and, aside from the results of modern breeding, that they did not differ in any essential quality from those of our own times.

While mythology, as we have seen, carries the association of man with his "cattle" an indefinite distance into the past, records that deal with live stock from a more practical point of view also imply for its beginning a period very far back in the career of the human race. Of this we have evidence in Genesis, for the sources of the narratives embodied in the earlier chapters of that book are of immense antiquity. The first name of a creature that appears in it is that of the whale (i:21), but the sheep is the first animal explicitly mentioned as "kept" by man, for as early as iv:2 we meet Abel, "a keeper of sheep"; the term "cattle," used in several preceding passages, having, as we have said, a collective significance. Sheep are also the first in the list of domesticated animals said to have been possessed by the Pharaoh of Egypt in the time of Abraham. As set forth in an earlier section, the Egyptians had bred and reared great numbers of sheep, as well as of goats, from an immensely remote period, and, notwithstanding the warm climate of the country, both species of animals appear to have thrived well. These people had developed, in a time far back in their history, a fine grade of wool that seems to have been used exclusively for making vestments for their priests and garments for the ruling and other upper classes. Southwestern Asia was very favorable to sheep, the Mesopotamian part of it having been especially so; and while this "land between the rivers" probably was not the scene of their domestication, it is the country in which the oldest known traditions bring them out of the night of ages into the morning twilight of history.

Our authorities are not in agreement as to whether our sheep are descended from some one or from more than one of the existing wild species, or from one or more species that now are extinct and forgotten, or from some crossing of living wild species with these provisional ones that are assumed to have become extinct. It is all quite a matter of conjecture, and a composite verdict derived from the various opinions would have to read: "Of uncertain origin."

We are in still thicker mists of ignorance concerning the evolutionary history of the wild species. As mentioned in a preceding section, we have no definite knowledge of the various intermediate forms of animals that must have connected the antelopine creatures of the Miocene period with the later-developed sheep. Geologically speaking, true sheep, like true cattle and goats, seem to have been comparatively late in making their appearance, for, as we have seen, the earliest known fossil remains of their kind have been found in the late deposits of the Pliocene period. Some writers would have it that the three made their advent in or about the epoch in the earth's history in which man-like apes became true men; that is to say, that our ruminating domesticated animals and the creatures who were destined later to reduce them to subjection came together upon the world's great stage of action. To say the least of it, this opinion is interesting, whether it shall ever be proved correct or otherwise.

The hollow-horned ruminating creatures we know as sheep are of the genus *Ovis* of the zoölogists, a group belonging to the even-toed section of hoofed mammals; in which section, as we have seen, also are included the various species of other ruminating animals, all of which are closely related structurally. The nearest allies of the sheep are the goats, from which the former are roughly distinguished by their heavy and twisted horns, by the absence of any very strong strong odor in the males, by the lack of a beard, and also by the presence of interdigital glands in the feet; but these distinctions do not hold good in all cases. Although sheep externally are quite different from goats in their general appearance, covering, and horns, the generic variations are not so evident when the whole series of these animals is examined; for they run into each other so closely that some naturalists have included them in a single genus. The horns of sheep, especially in the wild varieties, differ conspicuously from those of goats in their form and in their larger size; and in nearly all of the wild species they are present in both sexes as a rule, although much smaller—and sometimes absent—in the females. They are persistent, triangular in section—having always three more or less distinctly marked surfaces, are transversely wrinkled, yellowish-brown in color, curve backward laterally and spirally—the tip coming forward, and encase a porous bony core. The covering of the wild sheep consists of wool and hair, the exterior and harsher hair predominating, and concealing the undercoat of fine fleecy wool that is matted next to the skin. Sheep usually have



The Asiatic Argali.
(*From Wood's "Illustrated Natural History."*)

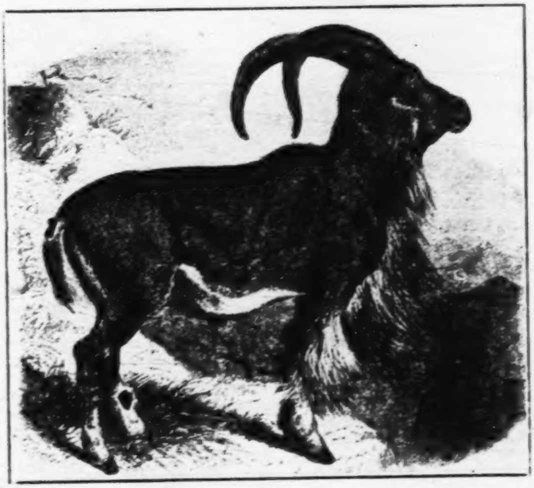
small ears, slender legs, and in the wild varieties short tails. Their teeth resemble generally those of the other ruminants, but the upper incisors and canines are entirely wanting, their place being taken by a callous pad, against which the lower front teeth bite. They retain in comparatively a rudimentary form, although it varies in different species, a mark of their alliance with the deer family in the crumen or tear-bag, which is so largely developed in some deer and antelopes. In the feet the hoofs of only the middle two (third and fourth) toes reach the ground, and are equally developed; the other two being very rudimentary and represented by small hoofs without bony phalanges. A singular organ of their feet is the interdigital gland, already mentioned, and that is present in nearly every species. Just above the two large toes is lodged a deep sac having a small opening in the front part of the foot between the hoofs. In this sac is secreted a fatty or oily odorous substance, which exudes from the orifice and taints the herbage of the ground upon which the animal walks, and by means of which, through the highly developed sense of smell, the proximity of other individuals of the same species is recognized. The most troublesome disease to which sheep are subject, that of "foot-rot," comes from suppression of the secretions of this gland and the consequent inflammation, which conditions usually are due to much standing on wet ground.

Sheep essentially are inhabitants of mountainous regions in parts of the world having more or less temperate climates, and wild sheep seldom are found anywhere else. The quickness of motion and the remarkable powers of climbing and leaping that are characteristic of all sheep is due to the long dwelling of the race in such regions; these qualities in tame sheep being an inheritance from their wild ancestry. There are many wild sheep still existing in the world, and no doubt they will continue to exist for a long period in the future. The distinction of the various permanent modifications among them upon which their separation into species depends is a matter of considerable difficulty. Apparently trivial characters, such as size, slight variations in color, and especially the form and curvature of the horns, are much relied upon by zoölogists in the discrimination of species, but no complete accord among these trained men has yet been established.

Wild sheep, together with wild goats, constitute an almost exclusively Old World group of animals—there being but one species of wild sheep in the western hemisphere; and of those of the eastern hemisphere by far the larger number is found in Asia. The distribution of the Old World wild sheep is over a vast area, extending as it does from northern Africa and the islands of the Mediterranean in the west to Kamchatka in the east, but the immense mountainous regions of central Asia may be regarded as the center of their habitat. About a dozen species are recognized, each designated by some special name, but only about one-half are of noteworthy interest to us.

Perhaps the most important of these is the argali, of which there are several varieties. What is known as the Asiatic argali inhabits the Caucasus and the elevated mountainous regions of Asia. It is a large and powerful animal, standing a yard high at the shoulders, and weighing above 200 pounds. Its somewhat fur-like outer hair is comparatively short, with a rusty-brown dorsal stripe, and a light-brown anal disc. In winter the general coat is of a tawny-gray, but in summer it becomes a rather deep rust-color. The male has tremendous horns which, in frequent instances, measure more than four feet in their curve and weigh upward of thirty pounds; those of the female being much smaller. It is said that foxes have been known to use the horns of the argali of Thibet—after the death of their owner, of course—for kennels. Perhaps the rams' horns employed with such telling effect at Jericho were of this kind. The Thibetan argali is a good fighter and no trifling antagonist, but individuals of the species have been domesticated without great difficulty. Another variety that lives in that part of the world at an elevation of about 16,000 feet above the level of the sea, is the magnificent *Ovis poli*, named after the celebrated Venetian traveler, Marco Polo, who met with it in his adventurous journeys through that region in the thirteenth century. It also is remarkable for the great size of the horns of the old rams and for the wide open sweep of their curve, so that the tips stand boldly out on each side far away from the animal's head, instead of curling around in nearly the same plane, as in most of the allied species. Still another wild sheep of central Asia that has very wide-spreading horns is the burrhel, which, in general other respects, follows the common type of the argali but which also possess many of the characteristics of our domesticated sheep.

The African argali (the "aoudad" and "ammatragus" of some writers), inhabiting the mountains of northern Africa from Abysinia to Barbary in small flocks, is a quite different animal, but it appears to be to some extent intermediate between sheep and goats, having the interdigital glands of the former and the beard and some minor anatomical characteristics of the latter. It is one-fifth larger than the domesticated sheep, but its horns are small in comparison with the size of the body and rather smooth. Its hairy outer coat is reddish-yellow in color on its back and sides with a dorsal stripe, while the under parts of its body and the inner sides of its legs are whitish; the hair on the anterior parts of the neck, body, and legs being from six to twelve inches long, and its seven-inch tail has a "pencil" of long hair on its end. It is said to be really a fierce animal that will defend itself bravely.

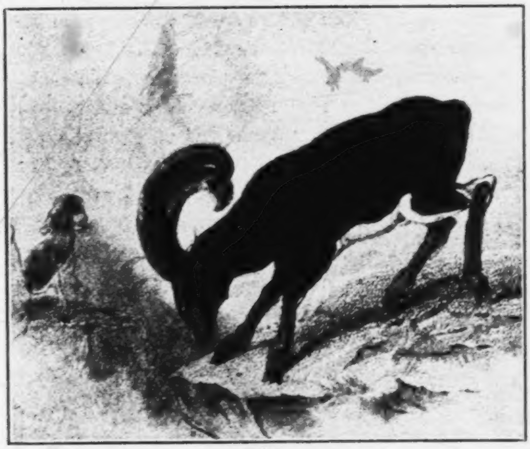


The Aoudad, or African Argali.
(*From Wright's "Natural History"*)

The wild sheep of the islands of the Mediterranean and of parts of southern Europe, commonly known as the moufflon, has even more goat-like characteristics than has the African argali; its general resemblance to the goat and the absence of the interdigital gland that is present in the feet of nearly all the sheep, having led some naturalists to regard it as the type of a genus to be designated as *Caprovis*—"goat-sheep," while a few others would set it over among the goats without any further ceremony. But a majority of the authorities continue to keep it among the sheep and to deal with it as one of them, according to its sheepish specific name, *Ovis musimon*. It is a stoutly-built and very muscular animal, exceeding four feet in length, and having a shoulder-height of about thirty-three inches; its legs being rather long for a sheep. The head is large, with compressed muzzle, broad, short, and erect ears, a moderate dewlap, and in many instances with a tuft of beard under the chin. The horns of the ram are remarkably large and long, curving to more than the half of a circle and gradually becoming smaller to the obtuse tip; their bases occupying almost all of the forehead, being separated by a very narrow space. Some of the ewes have small horns, while others are without them; and in both sexes the tail is short. The general color of the moufflon is yellowish, with a chestnut tinge that is deeper on the neck; the head is ash-gray, the horns an ochrey-brown, while the muzzle, a space around the eyes, the interior of the ears, the belly, the inner sides of the thighs, the lower parts of the legs, and the edges of the tail, are white—a coloration that makes it a very beautiful animal. The undercoat of fine wool is ashy or slightly-dingy white, and, contrary to what usually happens, the yellowish outer hair becomes darker in winter.

The moufflon inhabits the mountainous parts of the islands of Corsica, Sardinia, and Crete, and also those of Greece and of European Turkey; and are said, but perhaps uncertainly, to be present in Spain and in Persia. The animals roam in flocks of one hundred or more under the command of a shrewd and experienced old ram. They will breed with domesticated sheep, and occasionally some of them have been domesticated.

Naturalists who believe our tame sheep to be descendants of still-existing species of wild ones hold that they were derived either from the Asiatic argali, or from the burrhel, or from the moufflon crossed with these. Each of the three differs somewhat in form of skeleton, and, as we have seen, very greatly—the moufflon especially—in various outward physical characteristics, from the domesticated sheep, but these differences, it is said, can be accounted for by interbreeding, and by other changes due to conditions and circumstances attending the latter during its immensely long career in captivity.



The Corsican Moufflon.
(*From Jardine's "Naturalist's Library.*")

A remarkable member of the sheep family is the Cretan, or Wallachian, sheep, that is a native of western Asia and adjacent parts of Europe, and that exists, both wild and tame, in Crete, Wallachia, and Hungary; its horns having a very singular formation and development. In most of the rams the horns after making the first spiral turn rise spirally from the skull to a height nearly half the length of the animal from head to tail; but in some individuals the horns have been directed toward the ground, and much in the creature's way when feeding. The fleece of this sheep, which is fine in quality, is composed of a soft woolly undercoat, covered with and protected by long, drooping hair.

In America there is, and has been since ancient geological times, but one wild representative of the sheep tribe, proper: the Rocky Mountain sheep (*Ovis montana*), or the bighorn. It is one of the five hollow-horned ruminants native to the New World, all of which belong to North America; the other four being the bison or "buffalo," the musk-ox, the Rocky Mountain goat, and the pronghorn (antelope.) The musk-ox is as much sheep as ox, but really is quite different from either. Some writers would make the bighorn an eimgrant from the Old World, but notwithstanding its resemblance in general characteristics to the Asiatic argali it is indigenous to this country. Formerly it was fairly abundant throughout the entire Rocky Mountain region and in other parts of western North America, but is now becoming scarce, and in many extensive districts in which it used to flourish it has been exterminated. In the Rocky Mountains in the United States it ranged in flocks of from three to twenty-five or thirty individuals, from the northern boundary to the headwaters of the Rio Grande; and some were found as far east as the "Bad Lands" of Dakota. A variety of the Big Horn ranges the Sierra Nevadas from northern to southern California, and into lower California; while there is another in northern Mexico, and in southern Arizona and southern New Mexico. The survivors of the species are more abundant in western and northwestern British America and in Alaska; being found in Alaska as far north as its Arctic coast.

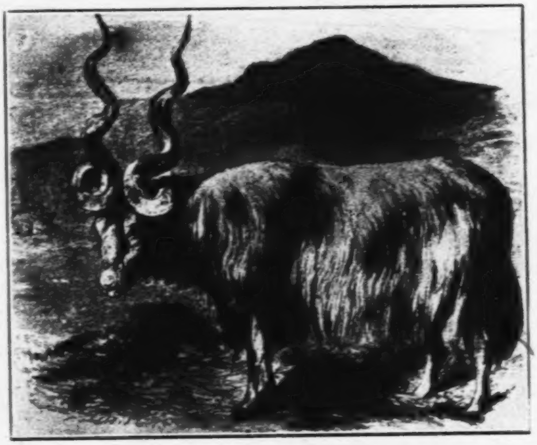
While the name "bighorn" gives no hint of the species of the animal, it was natural, perhaps, that it should have been bestowed upon the Rocky Mountain sheep; for the horns of the ram are, relatively, very large. From broad bases five inches or more in diameter and that are almost united, they are directed backward and then spirally forward, the length of the curve being about three feet, or nearly that of the animal's body proper. In some cases they have been seen of length so great and curved so far downward that they prevented their owners from grazing upon level ground and compelled them to head uphill when nibbling for their food. The bighorn is larger than the domesticated sheep, and the male is much larger than the female. The latter has small horns about six inches in length that are pointed and somewhat flattened. It has been said that the ram in jumping downward intentionally strikes head first that its horns may serve as buffers to receive the shock of impact. But this is not true, and any observed instances of such a performance were due either to the ram's miscalculations or to accidental falls—neither of which happens very often to the bighorn. The animal has the characteristic outer hair and the undercoat of fine wool. In color it varies, according to the season, from a dark brown or the grayish brown of the deer in summer to a dingy white in winter; and a section of pure white extends from ham to ham and includes the tail, which is short and tipped with black. Both sexes "ba-ah" like the domestic sheep, and the rams are quite combative among themselves. The bighorn dwells in the mountain heights and recesses that are most difficult of access, and is extremely hard to capture alive even when very young. It seems unable to live away from its mountain haunts, and in no instance has one long survived in captivity. As no opportunity has arisen for determining the matter, it is not known whether or not the bighorn would breed with the domesticated sheep, but it is not improbable that it would. Some writers have insisted that this animal is an antelope and not a sheep. All sheep, as well as all goats, have antelopine connections, and the bighorn is no more an antelope than is the Asiatic argali, and less so than the wild goat; and it has been aptly termed "the American argali."

In the foregoing we have seen that wild sheep essentially are inhabitants of moutainous regions. The parts of the world that have been mentioned are the only ones in which they are found. No wild species frequents from choice either level deserts, open rolling plains, dense forests, or swampy districts. Without exception they are mountaineers, and our domesticated varieties retain many traits that have come down to them from their mountaineering ancestors.

The domesticated sheep specifically is *Ovis aries*, and has been introduced successfully into every country in the world that has a temperate climate, and also into the highly elevated parts of sub-tropical, and of even tropical, countries; the elevation being attended by conditions approximating those of the temperate zones in which the animal's natural abodes are situated. Whatever may have been the origin of our sheep, the species now presents a remarkable variety of breeds that number between forty and fifty if all of the minor variations be included, and yet so shading into one another as to make it plain that if more than one kind of wild sheep were domesticated in remote times the number hardly could have exceeded two or three, notwithstanding that some naturalists would provide four or five.

Our sheep are of a strongly gregarious turn of mind, timid, poorly qualified and equipped to to defend themselves, and far more dependent upon man's care than is any other of the domesticated animals. This dependence is one of the conspicuous consequences of their domestication, and it would seem that their silliness is another. They are the weakest in character of all of our live-stock animals, yet their wild relatives are quick-witted and show a decided ability for managing their own affairs successfully.

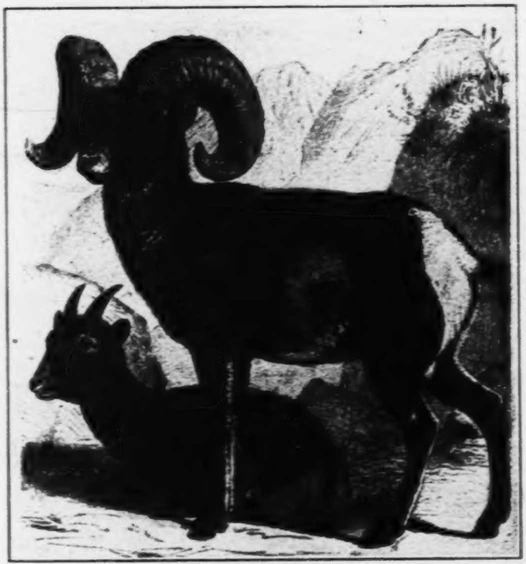
The variations of external characteristics seen in different domestic breeds are very great. They are, perhaps, more prominently manifested in the form and number of the horns than in any other respect. These may be increased from the normal two to four or even to eight; or, may be altogether absent in the females alone, or in both sexes. The ears may vary in form and in length, and in some certain breeds they are pendent by the sides of the head; and the shape of the head also varies, a notable example of this being seen in the peculiar elevation or arching of the nasal bones in some far eastern varieties. The tail is of different lengths, although in most of the breeds it is long, while in all of the wild species it is short—a physical change that appears to be



The Wallachian Sheep.
(*From Wood's "Illustrated Natural History."*)

due to the animal's domestication, but no cause for it can be assigned. There are great differences in the quality and color of the wool, some being long and either fine or coarse, some medium length, and some short, but also either fine or course; usually it is white, or nearly so, but it may shade to brown and thence to the coat of the proverbial black sheep.

But perhaps the most singular physical characteristic seen in domesticated sheep is present in some of the Old World breeds, which accumulate great stores of fat, or fatty matter, upon their rumps, or on their necks, or in their tails. In one of the two varieties of Syrian sheep the tail is enormously enlarged—the greater dimension being in breadth, and having the end turned back upon itself. It may be considered as a sack, and contains a fatty substance in character between fat and marrow. This is esteemed a delicacy by the people, yet is not eaten separately, but is mixed with the lean meat in many of their dishes, and also is used upon bread as we use butter. According to Steele and Jenks, the tails of these Syrian sheep attain a weight of from 75 to 100 pounds. A South African variety, commonly known as the Hottentot, or broad tailed breed, which is below the medium size, has two large masses of this substance on each side of the lower part of the tail. Various contrivances are employed to prevent the tail from being injured by dragging on the ground, the principal interest in the animal being centered upon the contents of its tail; the substance, as in Syria, being eaten with great relish. The Tartars (of Asia) have a breed of sheep that stores large masses of fat upon the rump, the accumulations upon a single animal weighing in some cases as much as eighty pounds. There are, also, some breeds in South Africa that do likewise, but their accumulations are not so large as with the Tartar sheep. In the so-called Zulu, or goitered, breed, there is a high collar of fat behind the horns and a large goiter-like fatty substance on the larynx. The causes responsible for these several singular results have not satisfactorily been determined.



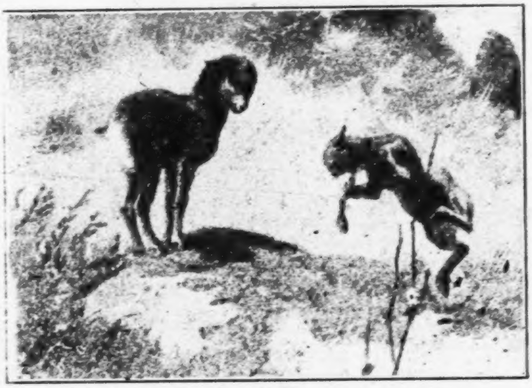
The Rocky Mountain Sheep, or Big-Horn.
(From Packard's "Zoology.")

Sheep are remarkably affected by changes of external conditions, as of environment, food, and so forth. An interesting example of this is shown in the tendency of the merino breed to develop an additional pair of horns when transferred from Spain to Peru, but it would be hard to tell why these animals found it necessary to double their number of horns after entering South America, unless it might be that they expected to become embroiled in some of the perennial revolutions that enliven political life in that part of the world. In the nearly barren, stony, arid, wilderness-like Causses of France there are varieties of sheep that have almost abandoned the habit of drinking, because of the scarcity of water, depending chiefly upon the juices of the rough herbage upon which they feed to supply their bodies with moisture. The much-esteemed Roquefort cheese is made from the milk of the ewes among these sheep, and its peculiar flavor is thought to be due to their almost waterless modes of life.

Sheep naturally are inclined to be choice in their food, yet they will thrive where most other animals would starve. Their narrow jaws and nibbling habits of feeding enable them to pick up a living from pasturage over which horses and cattle have immediately preceded them, but in doing so they will leave little behind them. They have a preference for aromatic plants, and soon will clear a field of weeds, briers, and bushes, and by their droppings prepare it for the plow. Well-managed flocks scatter fertility wherever they go, their droppings being richer than any other manure excepting that derived from fowls.

To western people sheep are unknown as working animals, but they are made to drudge in some parts of the world, being employed as beasts of burden in the mountainous regions of northern India, and as such do good service. Among advanced peoples they are valued chiefly for their wool and for their flesh for food, but the rude inhabitants of southeastern Europe and the tribes and clans of a large part of Asia regard their milk as of almost equal importance, for the milk of the ewe is abundant, agreeable, and highly nutritious. Among these people, especially those of Asia, sheep-skins with the wool retained are largely used for making garments, with the wool on the inside, just as they have been from the earliest period in human history. They are also used for this purpose, but to no great extent, in our own country by men who are much exposed to the wintry elements.

The covering of the domesticated sheep's body, unlike that of its wild relatives, consists practically of wool alone, the staple clothing material of most of the people of the earth; although in certain species some hair still lingers. But generally speaking the outer coat of hair that is characteristic of wild sheep long ago became very thin in the domesticated varieties, and in the remarkable development and improvement of their wool in recent times the hair has been so much further eliminated that in most breeds it is hardly noticeable, while in some it has almost, if not quite, disappeared and left the wool substantially in exclusive possession. But in tropical climates the hair will reappear, and within a few generations domestic sheep will become characterized by a coat of it. Wool has the property of "felting," or of adhering together under pressure, because of the imbricated scaly surface of its fibers; a quality that adds much to its utility. The hair of many other animals will felt, but not so perfectly as the wool of the sheep.

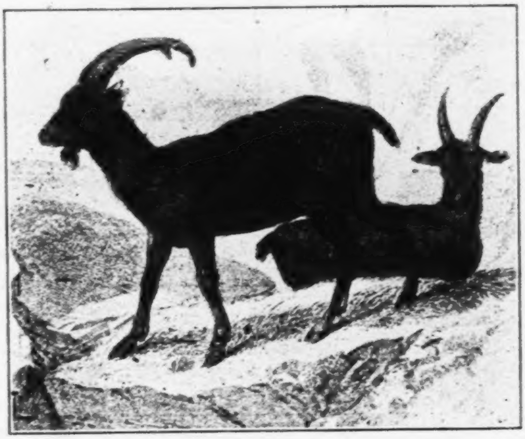


Rocky Mountain Big-Horn Lambs at Play
(From Seton-Thompson's "Krag, the Kootenay Ram," in Scribner's Magazine.)

In the sheep the period of gestation is about five months, and the animal matures at about two years and has a natural term of life of about twelve years. But the female is fit for procreation at one year and the male at one and one-half years. Generally one lamb is born at a birth, but quite frequently there are two, and there have been instances of three; the young usually being weaned at about three months. They are quite vigorous, one ram commonly being assigned to about thirty ewes, and they are capable of continuing production until the age of ten or twelve years. Congenital varieties thence arising easily may be perpetuated. An extraordinary example of this was seen in the production of the famous ancon, or "otter," breed of sheep. In Massachusetts in 1791 a lamb was born with a longer body and shorter legs than the rest of the flock and having abnormally long leg-joints and crooked fore-legs. As its leaping powers thereby were much impaired it was determined to propagate its peculiarities with a view to producing a breed that could not jump fences with the ease characteristic of the normal sheep. This was accomplished, and the "otter sheep" received much attention for some years thereafter, but its peculiarities proved disadvantageous, and the breed was permitted to become extinct. But while it was continued the lambs uniformly inherited the so-called "otter-like" form when both parents were of that breed. Other results of modern sheep-breeding are considered elsewhere in this work, and while they have not included any variety quite so "freaky" in anatomical structure as the "otter" was, they are none the less interesting, and present, also, some very remarkable physical specializations and striking adaptations to new conditions of life.

The domesticated goat appears to have preceded the domesticated sheep in Europe by a considerable period. The latter, however, existed in the European countries bordering upon the Mediterranean Sea from a high antiquity, but there is no historical evidence of their crossing the river Rhine or the upper reaches of the Danube until after the fall of the Roman empire.

Sheep were present, as we have seen, in Britain in a very early period, but were not indigenous there. Some writers have asserted that sheep had not appeared in England before the time of Julius Cæsar (100-44 B. C.), but it is now known that the ancient Iberian invaders of that land, and the Celts who followed them, had, as we have heretofore related, sheep among their live-stock. The Phœnicians have been credited with the introduction of sheep into Britain from the Mediterranean region, but unless it was by supplying the Iberians and Celts with them in the way of trade, their part could not have been of much importance. They were maratime traders to Britain in remote times, but founded no colonies there.


The Persian Pasang, or Wild Goat.
(From Jardine's "Naturalist's Library.")

The earliest known English reference to any special variety of sheep is not very old. It is said, but without authentication, that about the year 1150 some Cotswolds were imported into England from Spain, and this may be true, for about a century later this breed had become well established there. It would seem that above 300 years afterward Cotswolds had declined in Spain and that recourse was had to England for fresh stock, for it is of record that King Henry IV. in 1467 granted permission for the exportation of some of those sheep to Spain. The fact that a "royal dispensation" had to be obtained before a few of these animals could be sent out of the country implies that sheep generally, or this variety in particular, were highly valued in England in that period; and it also shows that English sheep-raisers were not free to dispose of their stock as and where they chose to do so. English records of the next century indicate that a sheep "trust" had been perpetrated upon that country, for in 1534, in consequence, as it was said, of the large number of sheep that had been acquired by comparatively a few persons, a heavy penalty was imposed upon everyone who should persist in keeping more than 2,000 head.

As mentioned in an earlier section, English sheep were not introduced into America until 1609 (at Jamestown, Virginia); more than one hundred years after the Spaniards had brought their live stock to the New World.

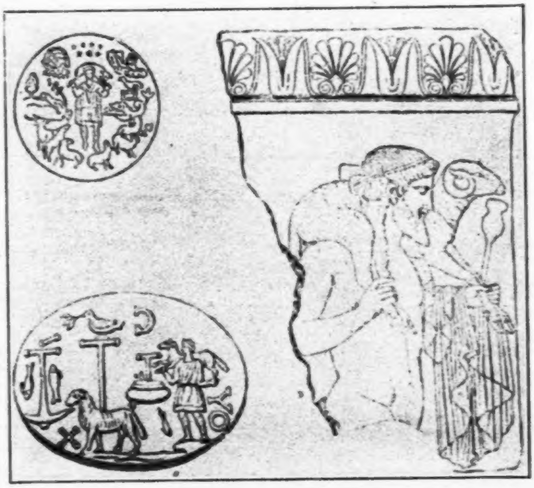
Throughout recorded human history and thence backward, as we have seen, into the misty ages of mythology, the sheep has been held in peculiar regard by most of the peoples of historic nations; and especially so by those over whom the influences of Semitic religions have prevailed. Our Bible teems from its beginning to its close with references to it and with figurative use of certain of its characteristics—its meekness and innocence, its proneness to go astray, and its dependence on the protection and guidance of its master, having been made the themes of many passages, the beauty and charm of which are not exceeded by anything to be found in other literature. From the earliest times in the hoary lands of Asia the wandering character of the lives of so many of the people, and their dependence upon their herds and flocks, in which sheep always held a place in the forefront, made their care the most important duty, and of which sheep received the largest share, partly because of their weak natures and partly because of their great every-day utility. The occupation of the shepherd was not only followed by the chiefs, but by their sons and daughters as well; and the season of sheep-shearing was one of much joy and happy festivities. Sheep were trained to follow the shepherd, and were not driven, as is the general custom in modern times, especially in our own country; and it still is the practice in these old lands for the shepherd to walk before his flock, leading it by his movements and by his voice, while the dog follows in the rear to take care of the stragglers. Towers were erected for the shepherds for the purpose of observation, and these still are used in many districts in Palestine and in Syria. The tower of Edar (Genesis xxxv:21) was a shepherd's watch-tower, and no doubt such small structures were in use by keepers of sheep in so early a time as that assigned to the story of Abel, the pioneer flock master. In making up the tributes which many of the ancient smaller "nations" of western Asia annually rendered to domineering kings of stronger neighbor countries, wool was an important element, and sometimes served the purpose alone. There are a number of very old references to tributes of wool among other things of value, the most interesting of these being contained in the inscription on the famous Moabite Stone, which gives the account of Mesha, King of Moab, of his rebellion (biblical 896 B. C.) against Jehoram, the King of Israel, to whom he had theretofore paid yearly tribute of the wool of a hundred thousand lambs and a hundred thousand rams. The Hebrew historian in II Kings iii:4, made Mesha throw in the lambs and the rams along with the wool:

"And Mesha, King of Moab, was a sheepmaster, and rendered unto the King of Israel an hundred thousand lambs and an hundred thousand rams, with the wool."

Mesha must, indeed, have been a very skilful and industrious sheepmaster to be able to pay such an annual tribute, for his petty "kingdom" was about the size of an ordinary county in Missouri. No wonder he concluded finally to rebel; and, by the way, he was successful after a hard fight, and quit giving up his lambs and rams with their wool to Jehoram.

From a sentimental point of view, our own people have lowered the rank of the sheep, and the general tendency is to disregard the associations with which it has been identified through the ages. It is true that we have immortalized the little lamb that Mary had, but upon the other hand we have put a lasting stigma upon the "colored" member of the sheep race. Because of an erratic inclination of Nature to recover something she long since lost—a species of black sheep—we unfairly have made any result of her occasional efforts in this direction a synonym of an evil-disposed or otherwise disreputable individual of our own species.

The semi-domesticated alpaca, of the lofty mountains of Chile, Peru, and Bolivia, South America, has a resemblance to a sheep, although it belongs to the camel family. It has a sheep-like head and body, but a much longer neck, and camel-like feet; its long fine wool, that usually is dark-brown or black, being used in the manufacture of the dress-fabric known by the animal's name.



The Broken Figure is a Representation of the Ram-Bearing Hermes Kriophoras. The Round Figure is a Depiction of "The Good Shepherd" on a Lamp found in the Roman Catacombs The Oval is a collection of Christian Symbols on a Seal found at Rome.

(From Carus' "Greek Religion and Mythology.")

Reference already has been made to the close relationship that exists between the sheep and the goat, a consanguinity comparable to that of first cousins. Indeed, the genus *Capra* is held by some authorities to comprise the goat and the ibex on one side and the sheep on the other; but others maintain that notwithstanding the goat's diversity in form, color, shape of horns, and in fineness of hair—which in some species approximates wool—that it possesses characteristics bringing it into the unity of a genus. •Like the ass, it has not been very successful in ingratiating itself into the favor of the Anglo-Saxon race, although it has been in good standing among other civilized peoples for a time so long that the memory of man runneth not to the contrary. As in England, so it has been in the United States—goats have not in the past been regarded with much favor, and but few of them have been kept in either country. Recently, however, some interest has been awakened in them here, and in several parts of the Union large flocks already are in existence.

The goat figures "officially" as a caprine hollow-horned ruminant of the bovidæan sub-family, *Ovinæ*, which includes the sheep. Among its enumerated characteristics is its usual beard; the absence of the secreting interdigital gland that is between the hoofs of the sheep; an exceedingly strong odor in the males—especially in those of the common variety (*Capra hircus*); horns of a dull yellowish-brown color, usually present in both sexes, but much larger and more angular in the males, having a sharp edge behind, curving backward, but not approaching a complete circle, the tips never coming forward, the curve, unlike that of the horns of the sheep, forming a segment of a circle, the diameter of which is much larger than the head. In some varieties of both wild and tame goats the females have either very small horns or are entirely destitute of them; and in a special breed of small goats present in South America, the West Indies, and upon some of the islands, and which are supposed to be of Asiatic derivation, the horns have disappeared from both sexes. Goats, like all other ruminants, are even-toed, but have the hoofs as high on the inner as on the outer side; the legs are strong and proportionately longer than those of the sheep, the tail is very short, and, as with the sheep, the upper incisors are absent, their place being occupied by a callous pad upon which the lower ones impinge. The hair varies n quality among the different varieties, ranging rom rather course to very fine, and is thick and close, with frequently an undercoat resembling wool, and in some species growing to a great length.

Almost from the beginning of the live-stock business upon our western plains cowboys have made their "chaps"—usually pronounced "shaps" —of goat-skins, and calf-skins, those of the goat generally being preferred; wearing them with their hair on the outside. "Chaps" is an American abbreviation of "*chaparejos*," the Spanish-American name for leather breeches or overalls worn to protect the legs from trees and brush while riding; but often, if not usually, the chaps of our ranchmen are merely pieces of hair-bearing skin large enough to cover the exposed parts of the rider's legs, and are attached to the trousers, or tied to the legs by thongs. Nearly every well regulated cowboy, even in these times of fenced ranges, regards chaps as absolutely essential parts of his outfit, although trees and bushes be few and far between on the land of the plains. Still they do good service there in wet and in cold weather in protecting the legs, for they shed water perfectly and are warm garments.

The notion, "popular" among many people, that goats are fond of eating old tin cans, cast-off rubber shoes, and other offal, is a mistake. Some modern varieties of domesticated goats are almost as discriminating as are the sheep in picking their food. The common, roustabout goat is less choice, and some of these, as well as certain wild species, are known to thrive upon plants that produce poisonous effects in the other ruminating animals.

There are two classes of the genus *Capra*, the one being represented by the goat and the other by the ibex. The former class is subdivided into the *ægarus* or wild goat, and the *hircus* or domesticated goat, of each of which there are many varieties. The ibex, while it is very goatlike in form and habits, differs from the goat in having longer and stronger horns, with two longitudinal ridges instead of one, and with their transverse workings knotted. It is found in the several montain ranges of southern Europe and in the Himalayas, remaining during the day above the snow-line, and descending at night to graze. It has several relatives, the nearer of which would seem to be the chamois, a goatlike antelope of the mountains of southern Europe and western Asia; the others being the African eland and the Abysinnian oryx; although some zoölogists would connect it also, but rather remotely, with the anoa of Celebes.

Wild goats have even a wider distribution in the Old World than has the wild sheep, being found throughout nearly the whole of the south European alpine region from Spain to the Caucasus, whence they extend their range through Armenia and Persia into the Himalayas and far into China. They ascend the giddy heights of the mountains with great precision from rock to rock, where there seems hardly a possibility of their obtaining a foothold. Their sight and smell are very acute, and hunting them is both difficult and dangerous.

Rocky Mountain Goats.
(From Whitney's "Musk Ox, Bison, Sheep and Goat.")

Among the various species of wild goats there are but a few of sufficient interest to us to be mentioned here. Perhaps the more noteworthy of these is the paseng of the Persians, which inhabits the mountainous regions of central Asia from the Caucasus to the Himalayas, and which is occasionally met with in troops at very great elevations. It stands somewhat higher than does any of the domesticated varieties, from which it further differs in its stouter limbs and more slender body. Its neck is short, and thus fitted to bear the enormous horns which in the male are larger proportionately than in any other ruminating animal; being about a yard in length and bent backward as in the domesticated varieties. In the females they are very small, or are altogether wanting. The covering over the greater part of the body is short, of a grayish-brown color, with a black line running along the entire length of the back; the short tail and the muzzle are black, while the under surface of the neck and the beard—which adorns both sexes, are of a brown color. The paseng is exceedingly wary of the approach of man, and as its agility is no less remarkable, there has been little opportunity of studying it closely. The common wild goat, which resembles in considerable degree the common tame one, is found in the mountains of the Caucasus, of Asia Minor, of Persia, and in those of southern Europe. It is higher on the legs than is the domesticated goat, the general color being grayish-brown, with a dark dorsal line, and a blackish tail; the coloration usually being paler in the females. The horns are large and heavy in proportion to the size of the animal. Another prominent wild species is the Jemlah goat, of the district of Jemlah in the elevated mountain chain of central Asia, which is a stocky heavy-headed animal with knobby and wrinkled horns. Two locally domesticated varieties of goat in that region are believed to be of this species. In nearly all of the mountainous countries of Europe there are descendants of tame goats that have been running wild so long that they are very difficult of approach, and have undergone considerable changes in characteristics. The body is smaller, ears small and upright, the hair coarser, and the horns more vertical and turning outward, and the colors more varied.

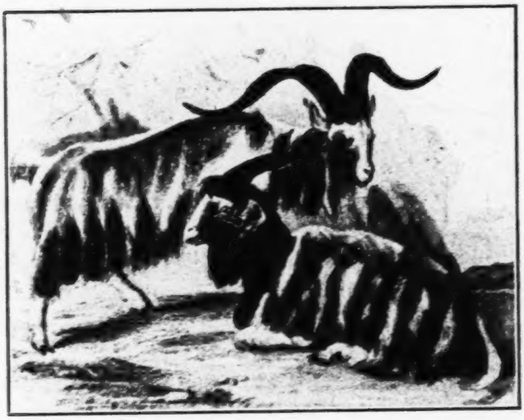
In America we have only one wild species—the Rocky Mountain goat, and it is in dispute among zoölogists. Some of these say there is no goat indigenous to the western hemisphere and that this animal is an antelope. This is a repetition of the disagreement over the Rocky Mountain sheep, but the preponderance of opinion places the creature among the goats. In its figure and size it resembles the goat, but has something of the cast of the merino sheep; the horns are small, conical, smooth, and jet-black; the outer hair is long, straight, and white, and as fine and as soft as that of the Cashmere goat; this external fleece hanging down all over the body and the upper parts of its legs, while the undercoat is of short fibers and soft and silky like very fine wool; and the chin is bearded. The animal is very scarce now, having been almost exterminated in the United States. Formerly it ranged the western mountains from latitude forty to latitude sixty-five, and was more abundant in what is now the State of Washington than elsewhere. Its haunts are in the highest and most inaccessible places, and it was always very difficult to reach, and at present the obstacles in the way of procuring a specimen are almost insurmountable. Hunters and travelers often have mistaken the bighorn for the goat and the goat for the bighorn, but there are great differences in appearance between the two when they are near enough for their variations in form to be seen.

As in the case of the wild sheep, it is said that wild goats when they leap downward, even from lofty precipices, premeditatedly land upon their horns, thus breaking the force of the shock. Statements to this effect, and applying to both species of animals, were made by the earlier naturalists and are still continued in the older books, but they now are regarded as having been due to errors of observation or as products of the imagination.

Considerable diversity of opinion has been expressed by naturalists as to the original stock of the domesticated goat, which now is met with in nearly every inhabited part of the earth. Some think that the Asiatic paseng is the original, while others would accord the honor to some variety of the ibex, and still others have different favorites. But the now prevailing and the most probable opinion is that the various domesticated breeds are severally descended from wild stock that long has been extinct; or in other words, the tame goats, like the tame sheep, are of uncertain origin. Both the ibex and the wild goats of Asia interbreed freely with the common domesticated goat, but the offspring is not always fertile; and instances of interbreeding, with similar results, are not unusual between tame goats and the wild ones of Europe.

Of the domesticated goat there is a great variety of breeds, which differ from each other in length and quality of the hair, in color, and slightly in configuration of the horns; the principal varieties being the common goat, which is the most familiar one in the United States, the Cashmere, the Angora, the Maltese, Syrian, and the Nubian, or Egyptian; the latter being of high stature and of a brownish color, with long shaggy hair and large pendent ears, and having the upper jaws so much shorter than the under that the incisors in the lower, and the chin, project and are exposed, thus giving the animal a kind of sinister expression.

But the most famous breeds are the Cashmere and the Angora, and it is in Asia, their home, and to them and through them, that the greater attention has been given and the highest results attained in man's dealings with the goat genus; the hairy coverings of these two breeds having been so refined that fabrics of great beauty and value are made of them. The Angora goat—so named from an old town in Asia Minor—has long ears, upright yellowish horns, and is rather sheep-like otherwise in its appearance. Its coat is composed of two kinds of hair, one of which is white, short, and coarse, and of the character of hair, and lies next to the skin; the other and outer is mostly white, long, and curly, very fine and light, and of the nature of wool. From the latter is made the beautiful, soft dress fabrics—the "real" mohairs. The undercoat is used by manufacturers, but the outer one, which



The Cashmere Goat.
(From Jardine's "Naturalist's Library.")

constitutes by far the greater bulk of the covering, is much the more valuable. The Angora frequently is confounded with the Cashmere, but it is in reality quite distinct from it. The Cashmere goat—of the province of Cashmere in the Himalayas in northwestern India—and often termed the "shawl" goat, also flourishes in Thibet and elsewhere in that region. As to form and horns, it is much like the Angora, with large pendent ears and slender legs. As with the Angora, the coat of the Cashmere is composed of two kinds of material, but in this breed it is the undercoat that is the more valuable. The outer covering is a long, coarse hair of various colors, while the undercoat, which partakes of the nature of wool, is, whatever may be the color of the outer hair, of a grayish-white tint, exquisitely soft and silky, and of a fluffy, down-like character. It makes its appearance in the autumn, and continues to grow until the following spring, when, if not removed, it falls off naturally; and its collection then commences, and occupies from eight to ten days. This is the material of which the far-famed hand-made costly shawls, and other Cashmere fabrics, that often are beautifully figured or embroidered, are woven. Efforts have been made to acclimatize and breed these goats in Europe for the sake of the extraordinary material afforded by their undercoats, the most careful attempt having occurred in France in 1816, but all proved failures; the animals appearing to be incapable of maintaining this special characteristic after removal from their Asiatic home.

The instincts of reproduction are highly developed in the goat, and the species propagates at a very early period in life. The male usually is capable of engendering before it is a year old, and not infrequently as early as seven months; and these periods apply also to the female. Gestation requires about five months, and as a rule at the first birth one kid only is produced, but thereafter the usual number is two, yet sometimes there are three. In one case that is of record a she-goat for three consecutive years dropped four at a birth, the father upon one occasion having been barely six months old. But such cases as this are exceedingly rare, and certainly are by no means desirable, as the progeny is sure to be small and to thrive poorly—the dam ing unable to provide milk for so large a family. Generally the goat breeds but once a year, but if well housed and under generous treatment it will produce young twice in twelve months. The males emit a strong and offensive odor, and are very pugnacious; and their libidinous nature is evidenced by the fact that breeders commonly assign but one to a flock of 100 females. The natural term of life for these animals is from twelve to fifteen years, but generally they are old at six, as they mature at about fifteen months. Hybrids between the goat and the sheep are known to have occurred, but they have been rare, and so far as knowledge of them extends also unfertile. Goats are much more intelligent than are sheep, but this is manifested in a kind of shrewdness rather than in the knowingness that is evinced by the dog and by the horse.

The flesh of a he-goat in maturity is almost unfit for human food except in the direst straits but that of the she-goat in good condition is comparable with mutton. The flesh of fattened wether-goats ranks with that of the sheep, and frequently is sold in markets in our own country as well as in others, as mutton, without the buyer ever becoming any the wiser; and the flesh of kids is pronounced by those who have eaten it often the finest of all meat. Many persons are under the wrong impression that the milk of the she-goat has a peculiar and unpleasant flavor, because they rest under another common error that assigns to the she-goat a share of the odor that is characteristic of the male. Except in unusual cases the milk of the goat does not differ from that of the cow in taste and is richer. An ordinary she-goat gives daily from two to three pints of milk; a superior one, two quarts; and an occasional exceptional one, three quarts. The milk is used for all ordinary purposes, including cheese-making, and is prescribed as a medicine for debilitated constitutions and for pulmonary diseases. In malarious parts of Europe and of Asia cow's milk is regarded as a predisposing cause of bilious fevers and of diseases of the liver, and goat's milk therefore is much used instead.

The concretions known as "bezoars," found in the stomach and intestines of ruminating animals, often formed by lime, or by magnesium phosphate or the like, around some foreign substance, and sometimes consisting entirely of hair or vegetable fiber, to which more or less "miraculous" medicinal powers have been attributed by the ignorant from the earliest times down to our own, appears originally to have been obtained from the paseng species of wild goats, the fancied supernatural qualities of the things having been the offspring of grotesque superstitions associated with the goat.

Assyrian Goat Demons.
(From Delitzsch's "Babel and Bible.")

As mentioned in a preceding section, the evolutionary history of the goat, like that of the sheep and of the ox, is not yet well known, but if the antelopine creature of Miocene times, there referred to as having begun to manifest goat-like qualities, continued uninterrupted in its goatward way, it might be supposed that the goat preceded the sheep and the ox; but it would be hazardous to trust to that evidence alone as indicating that the goat really was ahead of the other two. Fossil remains of goats are not common, and, as with those of the sheep, the earliest that are known were, as we have said, found in late Pliocene deposits, which suggests that, like the sheep, they may have appeared upon the earth about the time that man made his advent. But the uncertainties that becloud these matters are many and great.

The fact that the goat was on hand and had established a favorable reputation early enough to secure a place in the zodiac proves that it has been intimately identified with man an immensely long time, regardless of any question as to its primitive position among the domesticated animals. It figures in various other curious notions of ancient mankind, and is the source of several conceptions that are familiar to all of us. We have seen that the mythological Pan, the god of shepherds and the supreme power over nature, was represented as being about half goat; and that the great Jupiter when an infant was suckled by a goat. This god broke off one of the horns of his nurse, which became the cornucopia, or horn of plenty, a symbol suggested by the vigor of this animal; and for covering his great shield, Jupiter would use nothing but the skin of his goat-nurse, which, it appears, had been preserved. The animal was also associated with and held to be sacred to several other ancient divinities. The chariot of the great northern deity, Thor, who is commemorated in our Thursday (Thor's day) was drawn by a pair of goats whenever he went forth over his dominions, and a figure of this animal was the potent symbol of the Macedonians. There are almost as many references to it in the Bible as there are to sheep, the first, though indefinite, occurring in Genesis iv:4, the Hebrew reading of the word "flock" there used meaning either "sheep" or "goats." But the most singular of all of the relations the goat, or any other animal for that matter, bore to ancient peoples is found in the Hebrew attribution to it of something of the character of a messiah, and in their association of it with the idea of atonement for sins (Leviticus xvi.). Having been selected by lot, the "scape-goat" was made the subject of an elaborate ceremony. The high priest, clothed in white linen and attended by his assistants, after many preliminaries, laid his hands upon its head and confessed over it the iniquities of his people; whereupon a trusted man, chosen especially for the purpose, led the goat away far into the wilderness, where it was released and left to wander to its fate, bearing its heavy load of all of the sins of the children of Israel.

Samuel Burk Burnett.

The world has made greater advancement during the last fifty years than during the entire preceding 2,000 years. The stride has been so immense, covering, as it has, every imaginable department of activity, that it requires no inspired vision to see in the early future a reign of genuine happiness throughout the earth. The curtain has been lifted upon superstition, and the clock has struck the auspicious hour when the sentiment of enlightened man demands that every human being shall be entitled to the right of untrammeled thought and to the rightful reward for his labor.

Never since the dawn of creation have such opportunities for individual advancement been offered as are presented today. Never before were so many fields open for young men, and never have the prizes been so great or the incentives for the development of individual powers been so alluring.

The sun that each day lightens and gladdens this republic, carries a message of joy even to the most uncivilized and depressed nation of the globe. It announces that ignorance, error, and misdirected effort are giving way to intelligence, truth, and well-directed energy. The message vibrates with the invincible enthusiasm of victory, and the heart that receives and understands knows that it will be crowned with success.

For be it understood that he who accepts the welcome message—who yields entrance to the divine spark, that it may vitalize within his inmost consciousness the fires of unalterable determination to win—that person is destined as a certain victor.

Indeed, it is written in the book of fate that the determined, undaunted soul shall attain not only fortune, but all things that he may desire.

A study of history shows that it was through the stout-hearted and resolute men of the past that the glories of the present were made possible. The present, therefore, owes an obligation to the past that it can never repay. These men, whether as leaders of State, leaders in business, or heralds of civilization on the frontier of America, were built after the same magnificent pattern. Through them it was demonstrated that a vigorous, positive personality, governed by clear judgment, is an infallible introduction to achievement. The man who is so fortunate as to be born with these elements, even though he starts without a dollar in the world and is thrown wholly upon his own resources, is, above all others, to be envied.

Samuel Burk Burnett is, by general consent of friends who know him best, classed with those who are born for a successful career. There is no possibility of permanently holding back a man of the temperament and innate ability of Mr. Burnett. To hundreds of younger men he is a striking illustration of the possibilities of an individual accomplishing everything he undertakes. The person who conscientiously studies the successive steps by which Mr. Burnett has reached his present position as one of the most prominent cattlemen of America, ought to learn a lesson that should enable him to achieve an honorable and successful career. Such a one sees the present leader of live-stock men as a mere lad upon the frontier of Northern Texas, the great world before him, gaining his lessons in the rough life of the cow camp, avoiding no hardship, and shirking no responsibility. This willingness to assume responsibility was a trait early evinced by Mr. Burnett. Upon the broad prairies, in the clear, pure atmosphere of the elevated plains, on the cattle-trail, at the rude markets of the opening cattle trade in Kansas and Nebraska, he patiently and persistently followed the windings of the road that led to fortune. The round-up, the stampede, the dangers of the boggy stream-crossing, and all the details of cowboy life in the greatest cattle country of the globe became to him as "tales oft told."

From foundation up he learned the cattle business. Nothing escaped his attention. He fought the plains Indians and the no less troublesome cattle-rustler, and he has been a witness of the fluctuations of the cattle industry during forty years of its growth. Keen, erect, alert, aggressive when occasion calls for it, unceasingly following a programme after he has once adopted it, and always promptly meeting every diffculty, the course of Mr. Burnett has been marked by a surprising series of successes. Month after month, year after year, his judgment as to breeding, grazing, fattening, and marketing of cattle has been put to the test and met the requirements. Always willing to learn from the experience of others, he has adapted his plans to modifying conditions of a growing country, and for many years he has held a position as one of the largest cattle operators in Texas and Indian Territory. His opinion upon live-stock questions is solicited by many of the brightest cattlemen of Texas—a high compliment to any man, as Texas is a great empire of live-stock interests, the value of the live-stock in the State amounting, according to Government report, to more than $200,000,000. The influence of Mr. Burnett with the Department of the Interior at Washington upon vexed questions of Indian land leases is scarcely equaled by that of any other cattleman of the Southwest. As a negotiator of leases with Indians themselves, he has never been excelled, and he is recognized by Quanah Parker, Chief of the Comanches, as one of his staunchest friends.

Although Mr. Burnett on the frontier in his early life, had limited opportunities of attending school, he has a more definite and practical knowledge of business affairs than many who had all the advantages of training in the best educational institutions of the world. He has been a profound student of nature. He early got hold of the business end of life, and as a boy he learned the secret that he who would gain power must solve his own problems. He believes in the common-sense principle that every man must work out his own salvation. He believes that the greatest need of the world is for self-reliant men, and in no theater of America were they ever more successfully evolved than upon the frontier during the times of the cattle-trail.

Mr. Burnett is a type of the strenuous, modern American business man. It is a type that was never seen until it was produced under the American Republic, where individual merit receives recognition, and where genius and talent in business gain a reward unknown in any other country of the world. Here the penniless, barefoot boy may climb round after round of the ladder until he reaches the top. Should he aspire to become a captain of industry he must possess a practical knowledge of the business he selects, persistent industry, and the happy, intuitive faculty of recognizing the opportunity when it is presented. This is necessary for all successful military commanders, and it has assisted in no small degree in shaping the career of Mr. Burnett.

The ability to concentrate upon a given subject is also a faculty most important in shaping important issues of life. Mr. Burnett possesses this desirable gift in a degree far surpassing that of ordinary men. The concentrative faculty, combined with clear judgment and executive force will assure the future of any man. These traits mark this rare leader. Meeting a individual of intense concentrative power, we exchange salutations with the outer man. The inner man may almost be said to be a different person. While the outer man cordially shakes hands with us and speaks of markets and conditions of the world, the inner man may be engrossed in following the intricacies of a great business transaction involving the outlay of many thousands of dollars and many months' time.

Thus are we inhabitants of two worlds, and thus does the secret alembic of the human mind solve the problems that lead to the summit of human attainment.

Luck plays no part in the fortune of man possessing the abilities of Mr. Burnett. It is correct judgment, ceaseless energy, and wise direction of subordinates imbued with the same spirit as the leader. It requires the ability to decide instantly, the foresight to be prepared for emergencies. In the struggle for wealth and position, in which the entire civilized world is unceasingly engaged, the vast majority of those who enter the race are overwhelmed in the whirlpool and lost to sight. Comparatively few indeed are the tempting prizes carried off in the contest. But the world is learning.

The philosophy of life that leads to wealth, as interpreted by Mr. Burnett, is never to relinquish the faith that there is a day coming when the fondest hope shall be realized. His experience proves that there is a continual demand in the world for zealous workers who have the will-power to grapple with difficulties and to be equal to every demand in the competitive struggle. There is really no excuse for failure except downright confession of inability to rise to meet the occasion. The elements of speculation have never possessed any interest to Mr. Burnett. He did not even open an office until after he had passed the million mark.

Mr. Burnett is essentially a man who does things. He never allows himself to be connected with an enterprise that fails, and he has taken an active part in scores of business ventures aside from the live-stock field. Some men give way to nervous apprehensions and break down under the strain of accumulating business cares; others thrive in health as their fortune increases: they need no vacations, and are most vigorous and happy when responsibility is greatest. To this class belongs Mr. Burnett. He was one of the organizers of the Texas Cattle Raisers Association, and is a member of the executive committee and treasurer of the Association; he was one of the organizers of the Cassidy Southwestern Commission Company, the largest live-stock commission firm operating in Fort Worth; he is vice-president of the North Fort Worth National Bank, and is a director and stockholder of the First National Bank of Fort Worth, an institution known far and wide to live-stock men. Mr. Burnett is actively identified with mercantile interests and with cotton seed oil mills at Ardmore and Tishomingo, Indian Territory, but his land interests exceed all his other personal interests in value.

Years ago when it became evident that land-leasing on an extensive scale was approaching an end, Mr. Burnett began acquiring land. In the course of his purchases he gave his check for $558,000—the largest individual bank check ever signed by a cattleman in America. The size of the check is evidence of the faith of its signer in land investments in Texas. Within the last five years the inquiry for land has grown tremendously in the United States. Fortunes have been made in land investments, and the movement of settlers from crowded States of the East to farm and stock ranches of Texas is one of the notable movements of recent years. Mr. Burnett, with his usual good fortune, bought land in time to experience the benefit of the great home-seekers' influx, and should he at any time desire to dispose of his property the returns will exceed several fold the value of the original investment. As population of the United States increases large advances in land values are inevitable. This being true, it is his opinion that land investment in a desirable location as to soil, climate, and transportation facilities is one of the safest and best investments in the world.

Three large ranches, comprising upwards of 400,000 acres of land in the Texas Panhandle, are owned by Mr. Burnett. These ranches are located in King, Comanche, Carson, and Wichita Counties, and have tributary a goodly acreage of leased land in Indian Territory. Each of the ranches is provided with headquarters, complete working outfits, and all the accessories of modern and up-to-date cattle-raising establishments. More than 30,000 cattle are maintained, and the herd is one of the most noted in Texas. It requires 500 thoroughbred bulls to meet the requirements upon these ranches.

Mr. Burnett has been also highly successful in raising horses, mules, and hogs. He has raised and branded more horses than any other man who has ever engaged in the business in Texas west of Fort Worth. At one time he sold 2,000 head of horses, grown upon his ranch. His thoroughbred race horses have been the first to pass under the wire at the greatest racing centers of the West, but this has been to him merely a diversion. His real interest has been from his earliest recollection in cattle. For him, as for every real cowman, there is no animal on earth that compares in lasting merit to the old cow. As a veteran once exclaimed, "Nothing comes back like the old cow, if you are kind to her and give her water. A man may be obliged to quit the Pullman car and ride in the smoker, but if he sticks to the old cow, she'll lift the mortgage. When I pass a bunch of cows in a pasture I tip my hat to the old cow. She 's like the old sisters—we can't live with 'em, but we can't live without 'em. God bless the old cow!"

The Four Sixes Ranch owned by Mr. Burnett, with headquarters fifteen miles from Wichita Falls, is celebrated throughout the West and South on account of the quality of the product turned out. This ranch is in the same region where Mr. Burnett gained his early experience as a cowboy. The entire Panhandle was then an open range, the Indians and buffaloes roamed whither they pleased, and it had not entered the imagination of man that the country would ever be anything but an open range. Now, after a period of thirty or thirty-five years, the Panhandle of Texas is occupied by thousands of farms and ranches, railroads have been built alongside the old cattle-trails, and hundreds of towns and flourishing communities have sprung into existence. The transformation is so complete in the course of a single generation that should the old trailmen, long since in their graves, return, they could scarcely recognize the spot.

No part of the United States presents more strikingly the marvelous progress attained since the close of the Civil War than the Panhandle of Texas, and nowhere have the rewards of industry been more amply repaid. Competent authorities, familiar with the agricultural and stock-raising possibilities of the Panhandle, do not hesitate to prophesy that within the lifetime of men now living this, region will be as thickly inhabited as the agricultural districts of Kansas and Nebraska, and the cattle of the Panhandle will be recognized as the prize-winners of America. It is in this favored region that the life of Mr. Burnett has largely been spent.

Born in Bates County, Missouri, January 1, 1849, Mr. Burnett came with his parents to Texas at the opening of the Civil War. Jerry Burnett, the father of the widely-known family of cattlemen, located in Denton County, where he lived for forty-five years. He died February 24, 1904, as he was approaching the eighty-first year of his age. The mother of S. B. Burnett, before her marriage, was Mary Turner. Jerry Burnett was a successful farmer and livestock man, and a man of most estimable character.

Being in a cow country, Burk Burnett, as the oldest of the sons is known, very early in life became enamored of the range, the exciting race with the Texas Long-horn, and the wild, free life of the cow camp. Here he experienced all the vicissitudes of the cowboy, and in 1868 he made his first trip over the Chisholm Trail to Abilene, Kansas. He was then nineteen years of age. The following year he conducted 1,700 cattle northward belonging to his father, and was in charge of ten men, being at the time the youngest man on the trail at the head of an outfit. Although one stormy night the Indians stampeded the horses of the party and captured most of them, the cattle herd was delivered safely, and as Mr. Burnett owned an interest in the herd, he dates his start in the cattle business from that time. At twenty-one years of age he began business upon his own account, and in 1873 was upon the trail with 1,100 head of cattle. The great financial panic was under full headway when he reached Wichita, and it seemed that he would be obliged to start life over again. But the young trailman was not easily cast down, and he knew there would be a reaction in prices. Accordingly he retired with his herd to the Osage Reservation, where he wintered, selling out the herd in the fall of 1874 at a profit of $10,000.

In the same year he began buying steers and fattening them for the market, being the first man to buy all-steer herds for fattening purposes. The good effects were so apparent that other cattlemen quickly adopted the practice.

Many of them became independently wealthy through the operation.

Mr. Burnett has kept pace with improved methods, and for years has been one of the largest cattle-feeders of Texas. Although he makes his home in Fort Worth—the center of the cattle business of Texas—he spends a large part of his time directing affairs at his ranches.

The changes that have taken place within his recollection can scarcely be presented in a more vivid manner than to say that the Fort Worth & Denver City Railway now passes through what was years ago the front yard of Mr. Burnett's Panhandle home, running between the well and the cabin. In this vicinity the buffaloes were so troublesome that men were employed to kill them or drive them from the cattle range. It was an immense, almost trackless area of rolling landscape; scarcely a tree to be seen in a day's ride except in the dry valleys, and water-holes so far apart in certain regions that even experienced plainsmen often suffered extremely from thirst. At the present time bored wells and the windmills have solved the water question, and the thrifty and industrious farmer is causing the whole face of nature to smile with the exuberant joy of abundant vegetation.

Although Mr. Burnett has now reached only the prime of life, he is one of the important factors by which the wilderness has been redeemed and made a pleasing abode for generations to come. In the course of his busy life he has acquired a wide knowledge of men and affairs, an established character for honesty and fair dealing, for friendliness to others less fortunate than himself, and for liberality to worthy objects—more to be prized than great wealth; for, in the final summing up, it is not what a man has accumulated, but what is the nature of his influence upon the generation in which he lived, that determines his ultimate position in the opinion of mankind.

George H. Adams.

George Henry Adams was born in Milwaukee, Wisconsin, on the 21st day of January, 1845. His father and mother were amongst the pioneers of Wisconsin, coming from the Atlantic States, and as a youth their son was taught to depend upon his own exertions. At the age of seventeen he enlisted in the 39th Wisconsin regiment, and in this regiment and the 47th Wisconsin he took part in the Civil War as a soldier for the Union. At the close of the conflict he engaged as money-receiving clerk for the United States Express Company at Milwaukee, but was transferred to Kansas, where he was connected with the railway service department of the express company for many months.

After a vivid experience of Western life, Mr. Adams, in 1868, returned to his old home, and for a year was in charge of express business on Lake Michigan. Being attracted, however, by an irresistible fascination for the West, he started from Cheyenne, Wyoming, on an overland trip of 310 miles to the new gold fields where Leadville, Colorado, now stands, as the objective point. The outlook there was not at all to his liking, and he immediately decided that a beautiful valley in southern Colorado, of which he had heard glowing rumors, had many more attractions for him than mining. He turned the heads of his oxen towards the southeast, and started for the San Luis Valley.

This movement decided the destiny of Mr. Adams. His ambition was to be realized, however, only after years of labor. The trip from California Gulch to San Luis Valley in the dead of winter and in the midst of a great snow-storm was one of the most thrilling experiences of frontier life in Colorado. The route lay through a trackless wilderness, along the steep sides of mountains seamed with frightful gorges, which threatened instant destruction even to an experienced mountaineer. At the end of many days, one moonlight night, a lone settler in the valley was awakened by a knock at the door of his rude cabin, followed by the request: "Mister, will you please unyoke my cattle?"

Within a few minutes Mr. Adams was in front of a blazing fireplace, his hands and feet in pans of melting snow, suffering the most excruciating pain imagination can conceive. For three days the treatment was continued, and then his frozen hands and feet were pronounced on the road to recovery. Had it not been for the prompt assistance of his new-found friend, the pioneer cowman of the San Luis Valley would have died just as his eyes rested upon the land of promise.

Upon recovering from the effects of his terrific winter journey to his chosen abode, Mr. Adams proceeded to establish himself in the northeastern part of the valley, and a few months later leased a tract of land 12½ miles square from Governor William Gilpin of Colorado. This tract was known as Baca Grant No. 4, and the magnificent domain of 100,000 acres is one of the most favorable tracts in the entire valley for ranching and mining purposes. It comprises both mountain and prairie land, is plentifully watered by springs and mountain streams, and has many advantages of an ideal home for the ranchman. Mr. Adams afterwards bought this great tract from Governor Gilpin, and instituted improvements upon a scale surpassing any other enterprise of a like character in southern Colorado. He fenced the entire area—requiring 140 miles of fence—and constructed canals for irrigating purposes, which finally comprised 110 miles of ditches, and watered 28,000 acres of land for agricultural purposes.

Mr. Adams decided from the first that this domain of desirable land was to be a cattle ranch. It possessed the essential features for such a business. Farm and ranch life was as foreign to Mr. Adams' pursuits as was aerial navigation; but, as a man of strong mental resources, and indomitable courage and self-reliance, he set out on his purpose. His first purchase of live stock was in the spring of 1870, and consisted of a small bunch of Shorthorn, or "American-bred" calves, brought out by an Indiana man At that time cattle from the "States" were not known to the Western settlers by their distinctive type names, such as Herefords, Galloways, Shorthorns, Angus, etc., but they were known as "American-bred" or "State-bred." The only cattle well-known were those from the plains of Texas or New Mexico which were of an inferior type, originating in Mexico. Mr. Adams began a study of the habits and characteristics of his new acquisition. He closely watched their growth and development. The offspring from the cows of this purchase did not develop to his liking, and in 1873 he went to Cynthiana, Kentucky, and bought two registered Shorthorn bulls from the Shropshire Farm for $1,066. Returning home with these, the first registered cattle brought into the San Luis Valley, he added a herd of good Northwest Texas cows and also some that had been brought from Iowa, and crossed them with his new bulls. From these registered Shorthorn bulls he sold $7,000 worth of high-grade bulls, and thus started this blood through the Southwest.

He went deeper into the study of the great breeding problem, securing all the literature possible in those days on the subject, principally from England, thoroughly digesting it and forming his own conclusions. He came to the conclusion that his work was to be on a broader plane than that of any other of a similar nature in the country. He was bent on creating a breeding animal that could withstand the rigors of a Western mountain region, the prevalent climatic conditions, and he was confident that such would create the ideal beef-making steer. How correct he was in his prognostications, his success demonstrated.

He ran a distinctively Shorthorn herd until 1878. His study of this breed did not bring the results his ambition demanded. The temperament of the animal was to feed on everything in sight of home—grass and weeds—and it would not travel after grass alone. So he determined to look up Herefords, after learning of their rustling qualities, and he formulated his line of experiment and crossed the Shorthorn cows with Hereford bulls. In 1878 he went East to buy as many registered Hereford bulls of all ages as he could find. After traveling through Michigan, Wisconsin, Indiana, and Illinois and finding only a few, he was almost in despair about getting a large number, when he arrived at Beecher, Illinois, then the headquarters of the Herefords in the United States. Altogether, he secured 180 head of bulls, from calves to three-year-olds. He astonished his neighbors with this class of cattle, for they had never before seen a Hereford, and they asked: "What kind of cattle are they?"

Mr. Adams now entered upon a new campaign. For his foundation stock on the female side, he assembled a herd of the best colors from the cross of his Northwest Texas cows with the first registered Shorthorn bulls. The colors were all of a deep cherry red, which to this day is the distinguishing feature of the Adams cattle, be they the breeding stock or the steers in the feedlots. The results of the cross from his new Hereford bulls with his herd of red cows were just what Mr. Adams had been planning. They developed into excellent animals, possessed an individuality that was marked, and his success as a breeder of cattle was assured. Cattlemen and prospective cattlemen from Texas, New

Mexico, and the Mexican republic heard of the character of the registered and high-grade stock, and became regular customers, eager to pay from $75 to $150 a head for these white-face bulls. Mr. Adams educated them up to this demand by showing them in his own steer herd that one cross of his class of bulls with a good Southern cow would show a difference of three hundred pounds, compared with the calves from a scrub bull.

Another cause for Mr. Adams' success was that when a man came to buy registered bulls he got what he wanted; no grades were palmed off on him. Mr. Adams never had any trouble with the American Hereford Cattle Breeders Association through irregular or fraudulent registration. Lapses on the part of the herdsman were never allowed to be corrected by guesswork. When a calf was dropped whose registered sire and dam could not be accurately traced, it was branded with a small bar on the shoulder and turned out in a separate part of the ranch with the other orphans of high degree. The accounts of the latter herd are kept in a separate book labeled "Unregistered Pure-Breds." It can safely be stated that Mr. Adams was the only Hereford breeder in the United States who kept up two pure-bred herds of the same breed. The "Unregistered Pure-Bred" herd, consisting of 354 head, is kept at the San Luis Valley ranch, Crestone, Colorado, and the registered herd was at Linwood, Kansas, up to July, 1903.

Mr. Adams' method of doing business gave him great prestige among cattlemen all over the country—breeders as well as feeders—and he has shipped thousands of cattle to such men without their seeing the consignment before it was delivered to them. From his San Luis Valley ranch he has sent to market 10,000 to 15,000 cattle annually; one year alone he sold 900 bulls.

As the fame of his cattle spread, he was frequently importuned to make displays at the annual live-stock shows. But he was too busy at home, and he could see no profit in showing breeding stock in the East. But when it was made possible to show the steer-end of the product of his style of breeding, he took advantage of the opportunity. His first entrance in the show-ring was at Omaha, Nebraska, in 1897. There he carried off a number of first prizes against a field of animals from the most renowned Eastern stalls. He surprised the old-timers in the business, and unquestionably himself somewhat, too, for it gave him an opportunity to note by actual comparison wherein his line of work brought superior results. This display and the prices he received in the sales-ring were an inducement to establish a market further east, so early in 1901 he transferred all his registered stock to a model farm of 400 acres at Linwood, Kansas. He made displays at the Royal Live Stock Shows at Kansas City in 1901 and 1902, where he was as successful as usual in prize-winning and in the sales-ring.

Mr. Adams' strenuous work of nearly thirty years, not confined exclusively to the cattle and horse-raising business, but in conducting freight and stage lines, saw mills, merchandising and other lines of business demanded by a rapidly growing mining, agricultural, and stock-raising district, began to injure his health. In order to lessen his responsibilities, he began to dispose of his registered herd, and in July, 1903, closed out the balance, consisting of 127 lots of bulls, cows, and calves, for a total of $26,500. On the great ranch in the San Luis Valley there are, besides the unregistered pure-bred herd, 3,000 high-grade Hereford cows, not less than 63-64ths pure-bred, that "for regularity of color and individuality have none in the Union to compare with them, size of herd taken into consideration," declares Mr. Adams.

Cattle-raising has been Mr. Adams' study. He has taken a pride in producing a superior animal, and the business has been the foundation of his wealth and reputation. It has accomplished its purpose

During his busy years, Mr. Adams found time to visit Mexico, Europe, and the leading centers of the United States, and on account of his observations few men can surpass him in interest as a conversationalist. His investments outside of the cattle business have been numerous and in the main successful. He is a member of the board of directors of the Chihuahua, Sonora & Midland Railway, projected through the Yaqui country, Mexico, to tide-water on the Pacific coast. He is the owner of the Adams Hotel, Denver, one of the most elegantly appointed hotels in the West, and operated along lines which are entirely original with the proprietor. Here he now makes his home with his family. He is a pronounced lover of art, and is the owner of a number of works of the masters. He is a member of the Grand Army of the Republic, Masons, Odd Fellows, Elks, and for years has been greatly interested in the organization of live-stock men.

As has been said, Mr. Adams was a student of live stock; he grew in knowledge as the years advanced. Ideas from such a source are as diamonds to the future seeker after knowledge and those for whom this great history is written, and they are here given the benefit of the conclusions formed by Mr. Adams. He says:

"We in the West breed for steers—we make beef-makers; we furnish the animal for the feed-lot man. This climate, pure water and pure air are essentials to the creation of a vigorous animal, one which will develop faster and make a greater per cent of gain in a given time than steers raised in any other part of the world. I am making a statement I can back up by actual results. But, in breeding, I would breed only to Western-bred, pure-bred bulls. By breeding inferior cows to grade-bulls, the cold blood is returned, but by breeding to pure-bred bulls this cold blood is reduced a fraction by every cross. Thus when breeding for build or quality you get the results. The great, rolling mass of fat and blubber on a bull or a cow is not the make-up to create a good range steer. The clean-limbed, hide-well-filled-with-solid-flesh, square-rump, full-loin, small-flank bull is the one that will make the market-topping steer. Such a bull and such a steer are the products of well-selected breeding stock on the Western ranges. In November, 1896, a buyer was commissioned by an Eastern Illinois feeder to secure one hundred high-grade Hereford steer calves. He came to me and I sold to him. When those calves were two-year-olds past they weighed between 1,500 and 1,600 pounds each. As calves, they cost the feeder about $30 a head. They sold as beef at the top of the market on the day of sale in 1899, which was $5.85 per hundred pounds. The same feeder next tried a similar number of calves of inferior breeding which cost less money than those he bought of me. The feeding results were disastrous. He failed to get anywhere near the gain even after three-years' feeding. My calves were from registered Hereford bulls and high-grade Hereford cows. The other calves were from registered Hereford bulls and scrub cows. The fault lay in the breeding. You cannot get proportionate results if one of the parent stock is cold-blooded. A man in the cattle business might as well get all the profit possible, and that can only be obtained by breeding the best.

"The show ring practices of admitting only registered and high-grade breeding stock to contest should be remodeled so as to permit the entry in carload lots of the steer and heifer offspring of the breeds born on the range. It is to the range that the feeder looks for the animal to make the beef, and what the registered sires of the different breeds are good for, can only be demonstrated by the exhibits of high-grade stock from the range."

Mr. Adams also drops a word of advice to the Western stockman-farmer in the following:

"More stock will be fed in the West where it is bred, when the stockmen will give attention to the cultivation of Canadian peas and alfalfa, which will produce a first-class quality of beef and as fine white tallow as is found anywhere in the world. The farmer of the West who has a range will find a big difference between buying grade stuff on the market to feed out, and breeding his steers from his own pure-bred or high-grade stock."

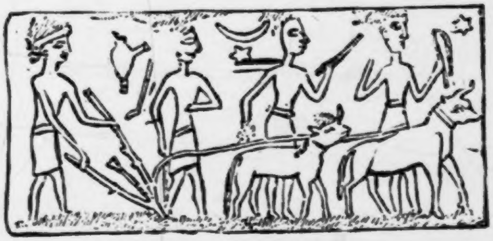
In 1878 Mr. Adams was united in marriage to Miss Addie J. Bertschy, who is a native of Appleton, Wisconsin, and a graduate of Appleton University. One daughter is a result of the union, a highly attractive young lady of 19 years, who was graduated in 1903 from Rye Seminary, on the Hudson River, in New York.

[Mr. Adams died at his home in Denver, Colorado, June 15, 1904, after a painful illness of many months, which he bore with heroic resignation. He will long be remembered throughout the mountain region as one of the most honored representatives of the industry to which he gave the best energies of his life.—Ed.]

Wild Traits in Cattle, Sheep and Goats.

Intelligence of Animals.—Tragedies of the Wild Life.—Gregarious Habits of Herbivorous Animals.—The Sheep in Their Mountain Life.—Their Lingering Wild Traits.—Their Great Modification in Captivity.—Their Loss of Combativeness.—The Goat and Its Characteristics and Traits.—Cattle and Their Ancient Habitat.—Their Habits in the Old Life.—Their Love of Water.—Origin of Some of Their Familiar Characteristics.—Effect of Combativeness on Their Physical Development.—Influences of Habitat Upon Animals.

Our nursery lore and many of our other legendary and traditional stories assign to certain animals shrewdness, daring, and endurance comparable in various respects with the intelligence and deeds of mankind. These old, and, upon the whole, rather consistent, tales mostly are based upon habits and traits in animals in which are seen exceptionally striking manifestations of keen intelligence, and which lead to acts that seem to require design, and obviously demand courage and endurance. These acts often appear to be prompted by a sense of discipline, of obedience, and even of duty—something similar in kind to that sense which marks and distinguishes some of the highest and noblest achievements of man. While many of these manifestations clearly are within the limits of our ordinary observation and comprehension, it may be doubted whether our consideration of them has as yet been sufficiently extended to enable us justly to measure and properly to interpret them. An English writer recently suggested that in studying the intelligence and conduct of animals we should make comparisons with men who are still more or less in the animal stage of what we may call "self-education," and not with the most enlightened of mankind. He resided for some years in Bolivia, South America, in a region adjoining one that was occupied by three tribes of Indians who were very near to true savagery, although engaged in agriculture of a desultory kind. After much careful study of the modes and habits of these people, he had the conclusion forced upon him on numerous occasions that the nobler animals, such as the horse and the dog, are quite as capable of "reasoning" or of "thinking out" the ordinary problems of maintaining their existence as are those savages. "Of the wild animals," he goes on to say, "many put whatever brain-power they possess to 'cunning.' Again, what is 'cunning'? Their cunning is very similar to that of the Indians of this country, who would rank high among savages." Conclusions to the same effect have been reached by many other intelligent investigators, who have studied the habits and modes of thought of savage races in various parts of the world.

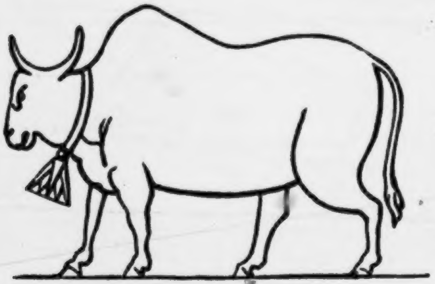


Very Ancient Chaldean Representation of a Plowing Scene.

(*From Houghton's "History of the Ancients."*)

The plow is a forked branch of a tree, and while there are but two cattle, four men are participating in the proceeding.

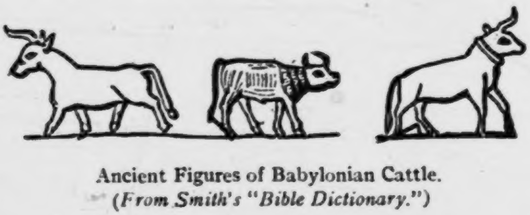
Among the habits and traits of our domesticated animals there are many that lend strong support to such conclusions, and in them are evidences of the "thinking out" faculty, of shrewdness in executing designs, and of self-sacrificing fidelity to each other in times of trouble. Some of these habits and traits were developed very early in the history of the several species, but any attempt at a close examination of their numerous and varied manifestations is foreign to the purpose of the present writer, and would be out of place in a historical work of this character. But we may with propriety and perhaps with profit to the reader give brief consideration to some matters connected with them that are of especial interest, and identified with the formative and development periods in the careers of the several species that constitute our "live stock."


Ancient Egyptian Humped Ox.
(From Rawlinson's "Ancient Egypt.")

With every wild creature, man or beast, constant vigilance is not only the price of liberty, but of life itself. Yet as a rule, to which the exceptions are not many, the lives of wild beings end in tragedies resulting from the unceasing conflicts between their own kind, or between species, in the struggle for existence and for supremacy. Wild tribes and species long may endure, but deaths of their individuals from natural causes comparatively are rare. To this warfare that has been going on from the inconceivable antiquity of the first appearance of animal life on the earth, more than to any other element in the lives of animated creatures, are due the origins of species, the development of form, strength, courage, speed, character, and above all else of intelligence and the dominance of brain.

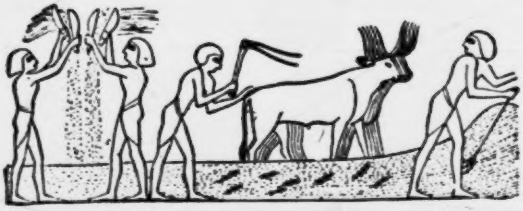
All of our domesticated animals are, of course, descended from wild ancestors that participated in these conflicts through untold ages; and many of their characteristics are directly to be traced to the exigencies and circumstances connected with the struggles. Indeed, most of their qualities that we find so essential to our comfort and well-being were then developed. These qualities, it is true, have been further incited and greatly improved by the cunning brain of man, but nevertheless they were in existence and serving purposes vitally important long before our savage progenitors had learned to make their first rude implements of stone. With these beneficial attributes some old traits of the wild life that have lost their ancient significance and utility still linger, and occasionally reveal themselves in various ways suggestive of the causes of their origin. Some consideration of these invaluable attributes, and of the practically obsolete traits referred to, may throw a little light upon the wild-life conditions under which they were unfolded.

The docility of our domesticated animals is not wholly due to man's influence over them since they became his servants, but is partly referable to certain training their ancestors had received before they entered captivity. All gregarious creatures, men as well as beasts, surrender some of their individuality for the common good. When groups of any species of animals find it necessary to live together as large families for mutual benefit and protection, the very nature of the circumstances that must attend such an arrangement develops in the individuals a disposition to be accommodating, and willingness to recognize authority and to follow leaders. Selfish, headstrong, and rebellious conduct soon would break up such an organization, and then it would not be long before every member of the disrupted band had fallen prey to the common enemies of the species. So far as we know their history, horses, asses, cattle, sheep, goats, and swine always have been more or less gregarious in their habits; and in our own times every new drove, herd, or flock of either, if given a few days in which to make a choice, or to have one of its members force itself to the front by superior strength of character, will be following a leader. It is to the hereditary trait thus manifested that their present great docility is partly due. But from immemorial time they appear to have recognized in man a master, and in their captivity have accepted him as their commander-


Ancient Figures of Babylonian Cattle.
(From Smith's "Bible Dictionary.")

in-chief; their own natural leaders having been reduced to the rank of subordinates.

As heretofore mentioned, our sheep and cattle seem to be much further removed from their wild ancestors than are the horse, the ass, the pig, and the goat. Modern research has made it very plain that the dog was man's first domesticated animal, and has brought to light much circumstantial evidence in support of the belief that the sheep was the second. The number of varieties, either of dogs or of domestic sheep greatly exceeds that of horses, or of cattle, or of the others, and the widely different characteristics that the many varieties of dogs and of sheep present are regarded as vouching for the priority of these two creatures in captivity. Perhaps the almost human intelligence of shepherd dogs in managing a flock of sheep is in a measure owing to the intimate association of the two kinds of animals in and through remote times during which they were the only ones possessed by man, and when probably they were kept together in the night-time and in inclement weather in close quarters under the same roof that sheltered the master and his family.

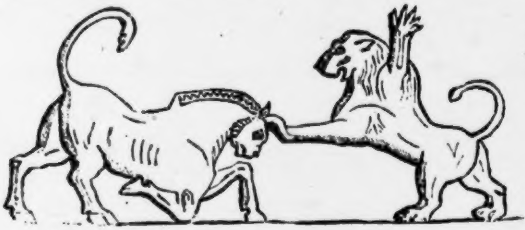


Ancient Egyptians Threshing and Winnowing Grain.
(From Champollion's "Egypt.")

As we have seen, all of the existing varieties of wild sheep are inhabitants of mountainous parts of the world and of no others. Notwithstanding that our domesticated sheep have been "civilized" to the point of total inability to take care of themselves were they to be thrown upon their own resources, they reveal very frequently traits inherited from their mountain-dwelling ancestors; all the great modifications that they have undergone at the hands, or rather the mind, of man, and the tremendously long period of their captivity, not having entirely eliminated from them the reminiscences of the old life. It is evident that the remote progenitors of the sheep genus did not originate in the mountains. Naturalists practically are in agreement in the belief that these forerunners of our sheep, like those of the asses and of the goats, took to the hills very early in the history of the family for some relief from the ravages of the carnivorous animals of the lowlands. Their relatives of the deer tribe and of other races, including some of their cousins among the antelopes—although some species of the latter also had to take to the elevations—had become cunning and swift enough to hold their own in the lowlands, but the only chance of survival that was open to the slower and shorter-winded sheep-like tribe was in flight to the high places.

Having thus been driven into a new and quite different environment, the next business of the primitive sheep was to adapt themselves and their habits to it and become fitted for the life of mountaineers. We are left to suppose that this was fully accomplished, but only after many generations had come and gone, by the survival of those which had more readily adapted themselves to the changed conditions, and by the elimination or sifting out of the unfit—a process ultimately resulting in the type still represented by wild sheep and from which, or variations from which, our domestic sheep were derived by our primitive ancestors.

Should a flock of tame sheep suddenly take alarm in the night and break away, the experienced shepherd knows that the place to look for his charges is the highest ground in the neighborhood. If a flock feeding near or upon the side of a hill becomes apprehensive of attack by an approaching vagrant dog or other animal, the sheep always will, from choice, run diagonally up the hillside. Lambs, and even their elders, sometimes, when at play prefer the steeper parts of the pasture-land for their gambols, and if there be a rock or a log lying about the lambs will skip to and mount upon it and there butt at each other as if defending the elevated point of vantage, as their ancestors had done in many a real emergency in the hazards of the old life. In combat the sheep runs or jumps forward and butts with the combined force of its weight and impetus. The evident purpose of this mode of attack is, not to disable or kill the enemy by the blow, but to hurl it away; and in this strategy we see the application of a method that has come down from old-time sheep-life in the mountains. All of the wild sheep fight by precisely this kind of butting, with a plainly pre-determined purpose to knock the antagonist from the cliff that he may be finished by the fall; and in this they are very often successful, for they are sturdy fighters. When danger threatens them they take refuge in a higher place than that in which they happen to be, if possibly they can do so, and when they see that they must make a stand they will plant themselves upon some narrow bench, if there be one within reach, where the enemy can approach them only in front. The warlike antics of the lambs of our fields when at play are amusing miniature representations of the fighting attitudes and methods of the wild ram warrior when engaged in battle.

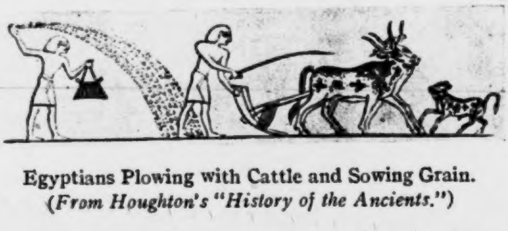


Fight between a Babylonian Bull and a Lion.
(From Rawlinson's "Ancient Monarchies.")

Man very early took a hint from the sheep's way of attacking an enemy, and made the "battering ram" that was in use in warfare from the dawn of history to recent times for breaking down gates and doors and for making breaches in walls; and which yet is the chief dependence of lynching parties for forcing entrance into jails. In ancient times the battering ends of the heavy timbers especially prepared for such uses by armies were carved in the form of a ram's head. The modern naval vessels that are built to destroy by butting are only floating fighting imitations of the male sheep.

If there were no other evidences of the descent of our domestic sheep from a wild ancestry that lived in mountainous regions, the form of their muzzles, their chisel-like cutting-teeth, and their practices in feeding, would be sufficient to make the relation very plain; for in these respects there is no difference between the tame and the wild. The latter, to sustain themselves on the sparse herbage growing upon the slopes and the terraces of their mountain haunts, and springing up in clefts and nooks between the rocks, have to nip close to the roots. It is probable that the very narrow muzzle of sheep is a special adaptation to the necessity among the wild species of plucking herbage growing in narrow nooks and in clefts; and that the quick motions of domestic sheep in feeding are habits inherited from their wild ancestors, who had to graze industriously for a few minutes and then stop to scan their neighborhood to see if any of their enemies were approaching, which practices are habitual among all varieties of existing wild sheep. Domesticated sheep show a fondness for plucking grass from nooks and crannies, and in their general grazing, although the pasturage may be plentiful, they bite close to the ground and make clean work of it, just as their ancestors, who dwelt in high places, were, by scarcity of provender, compelled to do. These inherited traits enable a domestic sheep to pick up enough food to keep it in fair condition in places where nothing but starvation would confront a horse or a cow.

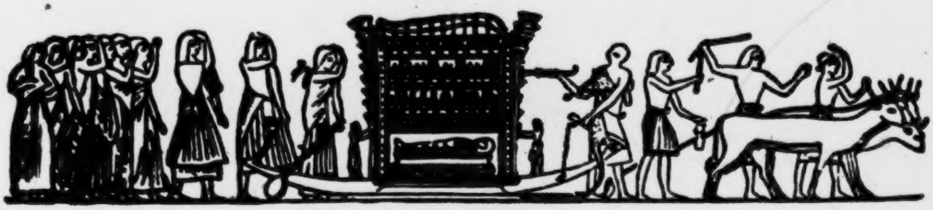
Man's interest in the sheep now is about evenly divided between the tribute of wool he receives annually from the animal and the value to him of its flesh for food. It is thought probable by several authorities that the utility of the wild sheep's hair-and-wool-covered skin for making rude garments was the principal inducement to the animal's domestication by savage men, and that its flesh then was held as of secondary importance. The wild sheep's undercoat of wool was, of course, developed to give the animal protection from cold, but it was one of the results of its removal from the lowlands to the mountains, and not, as might from first thought be supposed, an evolution



Egyptians Plowing with Cattle and Sowing Grain.
(From Houghton's "History of the Ancients.")

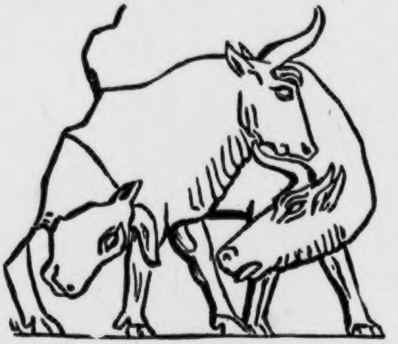
due to life in Arctic latitudes; since few sheep, either domesticated or wild, thrive in such latitudes. On the contrary, they can withstand better an approach to tropical regions, and in mild climates, as in New Mexico and in Arizona of our country, and in Australia, they have multiplied abundantly and fared well without thus far any serious deterioration of their wool-bearing qualities. But, as briefly referred to in a preceding section, in tropical climates their wool becomes either hair-like or is displaced by hair. It is true that the musk-ox, as its specific name (*Ovibos*) indicates, has sheep-like characteristics and lives only in Arctic regions; yet it is also ox-like. But as a matter of fact it has so far diverged from both sheep and ox that it is practically a creature entirely different from either. It would probably not long survive direct removal to a sub-tropical or even to a temperate region, and if it approached such parts of the earth it would have to do so by slow advances, and would at the same time undergo modifications that ultimately would work as great changes in its character as those which separate the sheep from its remote progenitors that lived upon the lowlands.

These forerunners of the sheep as we know it were covered with hair similar to that of the deer, but when they took to the mountains they required, in the greater cold of the altitudes throughout the longer part of the year, better protection than the coat of hair could give, and therefore a growth of matted wool was developed beneath the hair, which is characteristic of all of the present varieties of wild sheep. But in domestic sheep the outer hair, so far as practical purposes go, has disappeared in long-continued breeding under man's control; the wool being of greater utility to him than the hair. It would seem that as domesticated sheep had abandoned the mountain life and returned to that of the lowlands that they would have discarded the wool and resumed the exclusively hairy coat of their ancient progenitors. This is exactly what Nature would have them do if she were not baffled by the intelligence of man. Yet this can not defeat her purposes under all conditions, for, as above mentioned, the hair reasserts itself in tropical climates in spite of all that man can do to prevent it; as seen in Southdown sheep taken into the West Indies where the breed soon became greatly changed in appearance and character by a growth of long brown hair and by the rapid thinning out of the wool. It is entirely probable that if all domesticated sheep could be left to themselves and remained on lowlands they gradually would lose their wool and take on a coat of hair like that worn by their ancient forbears before the latter were driven into the mountains.



Egyptian Funeral Procession—the "Hearse" being Drawn by Cattle.
(*From Smith's "Bible Dictionary."*)

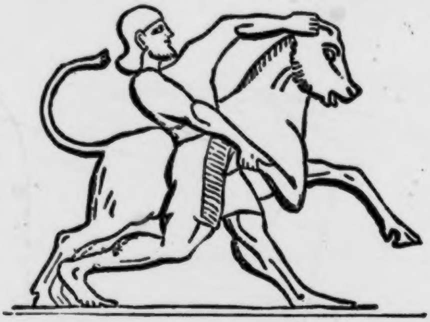
Lambs are born with legs nearly as long in proportion to their bodies as those of the young colt are to his; and many of them are able to run about smartly when but a few hours old. This suggests at once that in the old life the young lambs were not left concealed in secluded nooks by their dams when the flock went forth to graze, but were taken along and had to keep up with their parents in the movements from place to place in search of food and in running from their foes. Lambs have a curious habit of following anything conspicuous and of light color that moves quickly away from them, even if it be nothing more than a sheet of paper blown along by the wind; and in some countries they will gallop with great persistency after a horseman. When one sheep runs all others of the flock are likely to run; and so strong is this tendency among them to follow a leader and to do as he does that when one leaps over a stick held in its path all of those that follow will leap at the same spot, although the stick may be taken away. These instinctive traits are survivals of the ancient practice of going with the flock when it was moving from place to place in pasturing, or when it was fleeing from danger. Young lambs usually are of a solid-grayish color, however white may be the coats of their elders, a provision apparently intended by Nature to harmonize them with the color of the rocks of their ancestral homes in the mountains.



Babylonian Cattle.
(*From Smith's "Bible Dictionary."*)

Sheep that have not been accustomed to the care of a shepherd dog regard all dogs with more or less apprehension; and even those that have become familiar with the shepherd will resent the approach of a strange one. If such a dog enters a field where there are ewes and lambs he is watched in the most suspicious manner, and attacked at once if he comes too near. Many a cur proceeding upon the theory that sheep are always noncombatants, and strolling into the sheep pasture in the lambing season, has received treatment that astonished him. This determined hostility shown to dogs at such times is due, not so much to desultory encounters with sheep-killing domesticated dogs, but chiefly to the old wild instincts of the times when the flock on the mountain-side rallied to the defense of the lambs against wolves, wild dogs, and other pirates. An angry ewe often will stamp her foot when a dog comes within her sight, an act that is probably the ancient method of signaling the approach of an enemy. But it may also be a threat; for many animals akin to the sheep use their sharp hoofs with fearful effect. Deer will destroy snakes by jumping on them and ripping them into ribbons by outward strokes of their hoofs. Nearly all of the antelopes use this method of assault, and even men have been killed in this manner by large individuals of the antelope family.

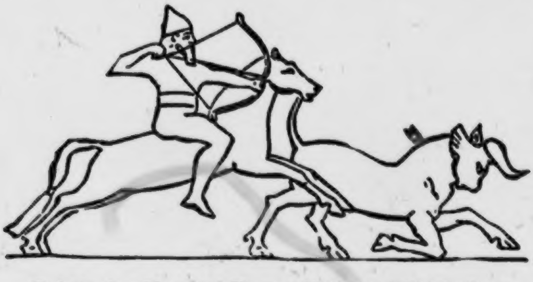
As a rule, all of the living varieties of wild sheep have short tails, and none has one anywhere near so long proportionately as that of the domestic sheep; and therefore in looking for lingering wild characteristics in the latter we need consume no time in examining its tail. Among herbivorous animals the tail is much used for driving away flies and other pestiferous winged insects, but on the windy heights of the mountains these usually neither are common nor troublesome, and therefore wild sheep, even if their thick coats of hair and wool did not protect them, would have little use for long tails. But the coats do protect both wild and tame sheep from such annoyances, yet the latter come into the world equipped with the long tails for which, after they have been weaned, at any rate, they appear to have no use whatever. Some sheepmen, with the expectation of breeding out long tails, have tried cutting short those of the lambs, but the animals persist in bringing forth young with long ones. It has been suggested that this has been done by Nature, because sheep have returned to the lowlands, where, in the premontane life of their progenitors the latter probably had the long tail. While this does not ap-



Assyrian Hunter Seizing a Wild Bull.
(*From Ragozin's "Story of Assyria."*)

pear to be entirely a conclusive explanation it is far better than any that has been advanced in answer to the question, Why does a lamb wriggle its tail while sucking? To the solution of this problem the present writer can offer nothing.

The curious aversion that sheep, and goats as well, have to entering water and to having their bodies submerged no doubt is an inheritance from the old life in the mountains. Even if quiet pools had been abundant there and the streams not mostly torrential, the coldness of the water and coolness of the air due to altitude would have left the animals no reason for entering water, but would have afforded a good one for keeping out; and so this abstinence would become habitual and be transmitted to their descendants.



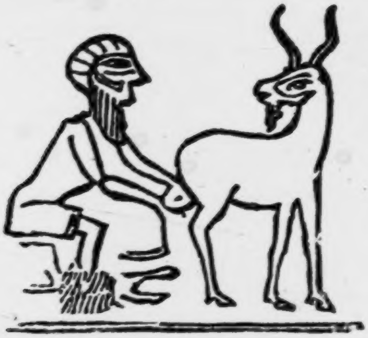
Babylonian Mounted Hunter Killing a Wild Bull.
(From Rawlinson's "Ancient Monarchies.")

As heretofore remarked, man's present interest in the sheep is about evenly divided between the wool received annually from it and the value of its flesh for food. While its full coat of wool was one of the early consequences of its domestication, in recent modern times the quality, and therefore the value, of the wool has been improved wonderfully by man's intelligence in the selection for breeding purposes of animals which had the finer and more promising fleeces. In making such selections the sheep-breeders of Saxony introduced the use of the microscope in determining the fineness of the wool of different animals, and by rejecting those upon which it did not rise in fineness to an established standard, succeeded in producing the fiber for which the Saxon sheep early became noted. In the almost total elimination of its natural outer covering of hair and the development of its woolly coat the sheep lost one of its conspicuous characteristics, and the change is among the very remarkable results of man's control over living creatures—perhaps more so than any other single deviation from Nature's established order.

The food qualities of the sheep's flesh also have been improved by selective breeding, but not to so great an extent as in the case of the improvement of the wool, for Nature already had far advanced this work. Young wild sheep in good condition afford excellent mutton, equal in nearly every respect, it is said, to the average of that of domestic sheep. The necessity of mounting steep slopes quickly and of propelling their bodies by leaps among the rocks, calls for a very full fleshy development of the muscles of the back and of the hind-quarters; a physical characteristic that is retained by domestic sheep, as we see in the relatively large loin-chops and in the well-rounded legs of mutton with which they supply us.

Another loss that sheep have suffered in domestication is that of their fighting qualities. While they still show, as heretofore referred to, some belligerency during the lambing season, at all other times they are proverbially timid, and being neither swift nor cunning, fall an easy prey to marauding dogs and even to the smallest and meanest of the wolf tribe. No doubt their wild ancestors were brave enough when they had to meet danger face to face, for all of the living wild species are so. A story that comes from India tells of a wild warrior whose courage and skill in battle would reflect honor and glory upon any kind of fighting-stock. A large ram was sent to the Calcutta Zoölogical Gardens, and, since no great interest attached to it as a curiosity, the keepers thought it would make several satisfactory meals for a young tiger they had in the garden. When the ram was put into the cage it attacked the tiger with great valor and fury, and, according to the account of the contest, succeeded in killing its striped antagonist after a most exciting but one-sided fight; the tiger appearing to have been from the start demoralized by the impetuous butting of its extraordinary assailant. While the element of fiction would seem to be involved in this remarkable tale, the story is represented as being a statement of facts.

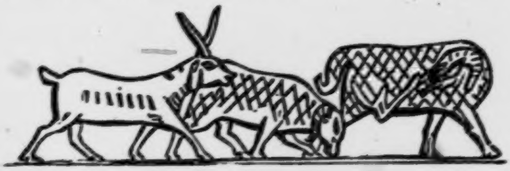
The sheep's closest relative among our domesticated animals, the goat, beside being nearer in traits and habits to those of its wild kindred, far excels its domesticated woolly cousin in individuality and strength of character. A very brief acquaintance with any goat is sufficient to convince an observant person that the animal is a descendant of a race of mountaineers and that its progenitors lived upon the high, broken, and craggy sides of the ranges and browsed the sparse and coarse shrubs and other vegetation capable of growth in such bleak places. Among existing species of wild goats a few members of the flock will post themselves upon elevated points, there to act as sentries to give warning of the approach of enemies; and it is not uncommon to see domesticated goats imitating this practice. Some wild sheep also do this, but it cannot be considered a custom among the various species; and it is only rarely that we see any traces of it in the habits of our domestic sheep. The independence of the domestic goat shows that it was common among its ancestors to become more or less scattered when feeding, while the disposition of sheep to huddle together and to follow a leader at all times tells us that their wild progenitors always kept near each other when it was possible to do so. The goat's fondness for climbing upon a high place from the summit of which it can look down upon the world, comes from reminiscences of the old mountain-life; and its willingness to eat rough food when it can find nothing better, no doubt is an inheritance due to the harsh character of much of the pasturage upon which its ancestors fed in their homes far aloft on the ranges. However, and as mentioned in a preceding section, the goat's reputation in popular notions for eating, or trying to eat, any and every kind of rubbish is grossly exaggerated and is an aspersion upon the animal. Unlike the domestic sheep, the goat is decidedly combative, and will offer battle promptly to any creature that approaches it; a trait in which is reflected the spirit of self-dependence developed in the old life when flocks became scattered and individuals therefore often found themselves alone. Its tactics are excellent, for it prefers to attack rather than to act on the defensive, and in making an assault it rears upon its hind-legs and comes down head first upon its opponent with the full weight of its body--a method of procedure somewhat different from the ram in combat. Being rather more slimly and compactly built than the sheep, and having even greater agility, it is a more active and effective in a fight than is its worthy relative.



Very Ancient Chaldean Representation of a Man Milking a Goat.
(From Rawlinson's "Ancient Monarchies.")

Our domesticated cattle, although having become far removed in many respects from their wild ancestry, still retain habits and traits that indicate so plainly the conditions of life under which their race existed in the ages before man thought of domesticating any of his fellow wild creatures, that a fairly accurate idea of them could be formed even if we knew nothing whatever of the extinct animals from which these were derived.

If their forms, the character of their feet, their heaviness of movement, and their awkwardness in climbing, did not make it clear that the ancients of their race were not mountaineers, certain of their habits unmistakably are such as would have originated only in the lower part of the earth's surface in which there were meadowy places, grass-grown glades, park-like groves, openly-wooded forests, and abundant

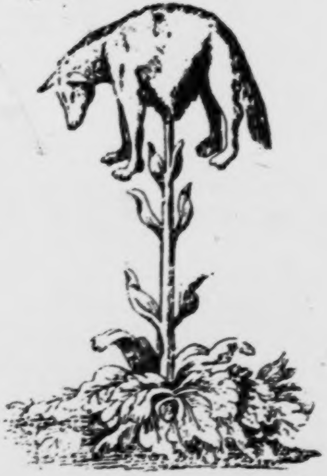


Assyrian Goat and Sheep.
(From Ragozin's "Story of Assyria.")

water. Cattle carry the head low, the crown being but a trifle above the line of the back. This became a fixed physical characteristic from a habit due to conditions incident to the old-time life, for this position of the head enabled the animals to see under the low-spreading branches of the trees, thus to discover either the approach of a foe or of an associate in the herd. They could do this also by the sense of smell if the breeze came from the right direction, but as much of the time of our cattle's wild ancestors was spent in wooded places, when they used their eyes for such purposes they could see to better advantage on a low level. It is as evident that the low position of the cow's head is due to these circumstances as it is that the natural high one of the horse's originated from the entirely different conditions of life in which the physical characteristics of its race became fixed. In the fondness of our cattle for standing knee-deep in shaded water and for lying in the shade of trees, we see manifested a trait that runs back into the wild life of their kind in glens and in park-like woodlands, where there were shaded pools and gently-running streams. Cattle are the only ones among our live-stock animals that have this fondness for water. The horse, the ass (and the mule), the sheep, and the goat, severally manifest more or less aversion to entering it, while the pig, which will wallow in the mire, rarely stands or lies down in clear water. But our cattle, retaining the love of their wild ancestors for woodland streams and shaded pools, do not hesitate to plunge into larger bodies of water, and appear to enjoy swimming, a feat in which they are highly accomplished. It becomes obvious to anyone who gives a little attention to their habits that they are more comfortable, better contented, and more at home in wooded and watered parts of the country than in any other, although their remarkable adaptability to changes of climate, conditions, and place, enables them to get along very well in treeless and semi-arid regions, such as our western plains; but these would not be their choice if they were left free to select their abiding places. The "wild cattle" that formerly existed in Texas and elsewhere in that section of our country never wandered far from the timber-lined streams.

Assyrian Sheep.
(*From Ragozin's "Story of Assyria."*)

In an earlier section we have referred to the circumstances under which the cud-chewing function was evolved. It is evident, as mentioned there, that it was developed before any of the ruminating animals, as the sheep and the goat, for examples, took to a life in the mountains, and that its origin was due upon the one hand to the depredations of ravenous carnivorous animals, and upon the other to the presence of forests and of thickets into which the victim species could retire and hide and there regurgitate and rechew the food which they were compelled, by their constant fear of these enemies, to gather so hastily that they had to swallow it with little, if any, mastication. These conditions eventually

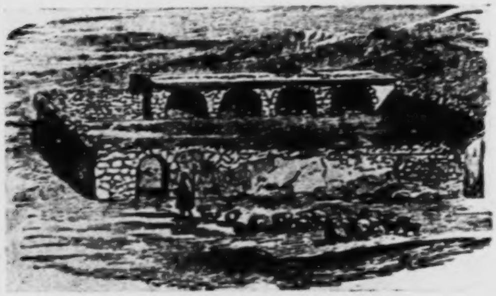


The Lamb-Tree of Tartary.
(*From Ashton's "Curious Creatures of Zoölogy."*)

Among the wonders believed by Europeans as recently as about 200 years ago to exist in "distant countries," and which figured in the "tales of travelers," was the "Lamb-tree" of Tartary, which was very graphically delineated by Johannes Zahn, in 1696 The plant was said to bear, as shown in the picture, a lamb having the actual body, blood and bones of a young sheep, and of which the wolves were very fond.

impelled some species to seek relief from their carnivorous foes by climbing the mountains, while others took to the open plains; but the cattle (and the swine also) remained where they were, and for safety depended upon secluding themselves as much as was possible. To this day our cattle are disposed, if they have opportunity to do so, to retire after feeding to some secluded place and there lie down to ruminate, after the practice that necessity established among their kind ages ago.

The milch-cow, as such, is one of man's perversions of an original purpose of Nature. The cow was neither created nor intended to supply him with milk, and to do so really is no legitimate part of her business in life; no more than it is that of any other four-footed mammal. She was a good "milker" long before she was brought under his dominion, but since she passed to his control much has been added to her milk-producing proclivities. These, however, primarily are due to certain of the conditions under which her remote ancestors lived. The young calf is comparatively a feeble creature, unable to travel far or to go fast. The wild mothers, after giving suck to their young, would leave them in hiding in thickets or in other suitable places while they went abroad to graze, and the calves would have to await the return of their mothers before they again could receive nourishment. Therefore the mothers developed larger udders to contain the accumulations of milk secreted during the hours of their absence from the calves; and so the udder of the wild cow became much larger than than that of the wild mare who had her colt with her wherever she went, and which refreshed itself from it very frequently. Our farm-cattle often hide their young calves, or try to do so, in thickets or in the undergrowth of woodlands, and sometimes it takes careful searching to find the concealed new-comer into the world. The home-coming of cows in the evening is a habit, the germ of which probably lies in the returning of the wild mother-cows to their concealed calves after they had finished their fear-haunted grazing; but, of course, it is one that has been greatly emphasized since cattle were domesticated. After this happened, and it came to pass that they were milked at the regular times of morning and evening, the intervals between reliefs of the udder were longer, and therefore that organ became still larger in order to hold the milk secreted during the longer intervals.



An Old Palestinian Sheep-fold.
(*From Smith's "Bible Dictionary."*)

" * * * We will build sheepfolds here for our cattle, and cities for our little ones."—Numbers xxxii:16.

" * * * I took thee [David] from the sheepcote, from following the sheep, to be ruler over my people, over Israel."—II Samuel vii:8.

To be "as strong as an ox" long has implied possession of Herculean strength; and a full-grown ox, or a bull, in good condition, truly is a powerful animal. In a "dead pull" the ox is more than a match for any horse, excepting some of great weight and that have been especially bred for draft purposes. The strength characteristic of the ox was developed in its ancestors, partly in their long warfare with carnivorous animals, in which the fighting was done at close quarters; the cattle depending solely upon goring, ripping, and tossing their antagonists—methods that required great muscularity in their necks and shoulder-parts. In the process of "natural selection" in this work the weak or undersized cattle went down before their enemies, while the larger and stronger vanquished their foes and transmitted to their descendants the qualities that had made them victors. But another and contemporary great factor in the development of their astonishing strength of neck and forequarters was the strife for mastery between rival bulls, the reward of the successful one being the lordship of the herd. In these desperate encounters, the heavier, stronger, and more agile usually would win the battle; and as their fighting was done by furiously charging upon each other, and by each endeavoring to rip with his strong horns the body of the other and to toss it by main strength, their muscular system thereby became very highly developed, and the practice of applying their weight and energy by "pushing" was fixed. Captivity has not deprived the bull of its martial spirit nor of its strength for fighting, and the old warfare for the lordship of the herd still goes on.

In the broad split hoofs of the cattle we see an adaptation that served them to good purpose in their wild state. In galloping through boggy places or in deep mud cattle can distance a horse. Their toes spread, and therefore their wide feet do not sink so deep as do those of the solid-hoofed horse. Furthermore, the cleft between the toes permits the air to enter the hole in the mud as the foot is raised; whereas the horse must overcome a partial vacuum when it withdraws its hoof, and so wastes considerable muscular effort beside having its speed retarded and its self-confidence shaken.

The evident reason why primitive cattle did not join the horses and other herbivorous animals in a life upon wide and almost treeless plains lies, in part, in their inherent love of woodlands and streams and pools, but chiefly in their structure, which was not adapted to the long and fast running necessary to escape from the wolves and the wild dogs that were the principal predatory animals of such regions. They could not go to the asses, the sheep, and the goats in the mountainous regions, because they were equally ill-adapted to climbing steep slopes and to treading narrow paths among precipices. Therefore they had to remain in the wooded lower countries, and by caution and seclusion avoid danger and destruction as best they could. They did not invite the attentions of carnivorous night-prowlers by going forth to graze in the darkness, but remained quietly in their woodland or thicket lairs. This practice permanently influenced character in the race, and to this time cattle naturally are not disposed to be nocturnal in their habits. Horses usually graze at night when they are afield, and this difference in habit would seem to be due to the probability that the ancient wild horses did not fear their attentive and untiring enemies, the wolves and the wild dogs, any more at night than in the daytime, and that they could run from these foes about as well at night as in the day.

It may seem to be a somewhat curious fact that the ancestors of just one-half of the six species of domesticated animals that constitute what commonly we understand to be included in the term "live stock," should have been mountaineers, while those of the other half were dwellers upon the plains and in the lowlands; the asses, the sheep, and the goats representing the highland group, and the horses, the cattle, and the swine the other. The general tendency of mountain animals is to be smaller than those of the plains and of the lowlands, the exceptions being very rare; and in each of the few instances, as in the case of the grizzly bear of the Rocky Mountains, there are special circumstances that account for them and leave the tendency referred to unaffected. But nowhere and at no time have mammals comparable in size with even the rhinoceros been known to inhabit mountainous parts of the earth, for the scarcity of food and the difficulty of obtaining it, and their bulk, would exclude them from living in such regions. The sparseness of vegetation in mountain districts forbids the presence of a large number of herbiverous animals in any given locality, and therefore their flocks and bands are insignificant in size in comparison with the vast herds of other creatures that have been seen upon plains. But destructive enemies are correspondingly fewer, and the general influences of the mountain life upon herbivorous animals are toward greater individual vigilance and, as a rule, to greater self-reliance than commonly is characteristic of those of the plains and of the lowlands.

Colonel R. E. Edmonson.

Colonel R. E. Edmonson is one of the most widely-known live stock auctioneers of America. Attracted to the sale ring by natural inclination, possessing an engaging presence and a voice whose wonderful power is recognized by live stock men everywhere, he has added to his usefulness by a conscientious study of all subjects pertaining to the live stock interests. For nearly a third of a century he has been a prominent figure at sales of live stock, and has participated at sales in every prominent live stock State of the Union. From Massachusetts to California, from the Dakotas to the Gulf of Mexico, the name of Colonel Edmonson is familiar among live stock men, and his attributes of honesty, energy, perseverance, and undivided attention to the important calling in which he is engaged, are universally recognized. Time tries all things, and the man who holds his position in the front rank of the live stock auctioneers of America for thirty years, is no common man. He must possess the ring of the genuine metal. He must be keenly alive to the great advances that are taking place in the industry; he must be a good judge of live stock, and also a good judge of human nature. The two qualities are not often found in the same person, but they are the foundation of the success of Colonel Edmonson. The pleasing manner of an accomplished gentleman has assisted in no small degree in placing him in the enviable position he now enjoys.

Colonel Edmonson is a native of Kentucky, the State that has contributed more than any other State of the Union to the importation of blooded stock, and whose sons for nearly a hundred years have been earnest and persistent advocates of improved quality of all breeds included in the live stock industry. He was born on a farm in Clark County, May 3, 1843. The Edmonson family is of Scotch descent, and traces its lineage back nine hundred years, to the time of the Norman Conquest. The name, variously spelled, may be found many times in the list of Scottish leaders, who were prominent in war and peace. The name was originally derived from the lairds (lords) of Ednam, and the genealogy is traced through the records relating to the lairds of Ednam and Duntraith, from the year 1063. Sir William Edmonstoun, son of Count de Edmont, a duke of Flanders, is the first member of the family named in Burke's Peerage. He married a daughter of King David of Scotland. Sir John Edmonstoun married the Countess Douglass, daughter of King Robert Stuart, and Sir William Edmonstoun, the fourth laird of Edmonstoun, first laird of Duntraith, married Margaret Stuart, daughter of King Robert III. In 1445, to Sir William was granted by royal decree the lands of Duntraith, since that time the chief seat of the family in Scotland. Sir William Edmondstone, the fourth baronet, a half brother of Sir Archibald Edmondstone, who died in 1871, now holds the estate. The family has for many centuries been closely identified by ties of blood and marriage with the Stuarts, the Douglasses, and the Campbells.

John Edmondson (also written Edmonson and Edmonston), from whom Colonel Edmonson is descended, was the first of the family to emigrate to America. He came in 1655, and his brother, William, arrived three years later. The brothers settled in Maryland, where they acquired land holdings, and where the Edmonsons and the Bealls became related by marriage. Colonel Ninian Beall, whose daughter, Jane, was married to Archibald Edmonston, grandson of John Edmondson, was a leading citizen of Prince George's County, and, like George Washington, a surveyor and Indian fighter. The Colonial Assembly, in 1699, passed an "act of gratitude" to Colonel Beall for his services in Indian wars voting him "seventy pounds sterling to be laid out for three serviceable negroes for himself and his wife."

The Edmonson name occurs among the fighters of the Revolutionary War and the war of 1812, and members of the family were large land owners in Maryland and Virginia. The movement of the family to Kentucky began soon after the Revolutionary War. Archibald Edmonston, grandfather of Colonel R. E. Edmonson, died in Winchester, Kentucky, in 1800. He was one of the very early settlers of Clark County, Kentucky. His will, a copy of which is in possession of the family, is couched in the quaint expressions of the day, and indicates a profound religious feeling and a devoted attachment to his wife, Lindy Edmonston. "I will my soul to God who gave it, my body to the dust from whence it came, to be buried in a plain and decent manner. I will that my lawful debts of every kind be paid out of my personal estate in a just and speedy manner. I give and bequeath to my beloved wife, all and singular, my personal estate that may remain after paying my debts, as above directed, likewise my negro man, named Jim."

A tract of 517 acres of land near Washington City, mentioned in this will, was in an unaccountable manner lost sight of by the family. The names of the children of Archibald and Lindy Edmonston were James, Thomas, Patsy, Polly, Suckee, Marjory, and Dilbey. James, the oldest of the children, was the father of Colonel Edmonson. He was a farmer and a Baptist minister, and died in 1860. He was twice married, and the father of twenty-one children. His first wife was Sarah R. Haggard. Twelve children were born of this union. The second wife of James Edmonston was Polly Boone, a direct descendant of 'Squire Boone, brother of Daniel Boone, the original pioneer of Kentucky. Colonel Edmonson has the blood of the Boones in his veins, and it is doubtful whether any other family of America can point to a more distinguished lineage. It is also interesting to note that long ago in Scotland Sir William Edmonston, tenth laird of Edmonston, was married to Isabel Hadden. Colonel Edmonson is married to a direct descendant of the Hadden family, and after long centuries the family streams are again united.

Again referring to James Edmonson, it is interesting to note the circumstances through which he passed and the sturdy character he attained. He was a self-made man. His parents died when he was young, and he was apprenticed when a boy as a saddler. He lived in the Flanigan family, at Winchester. Judge James Flanigan is the only survivor that was personally acquainted with Mr. Edmonson in his earlier years. A man of practical affairs, strong convictions and thoroughly orthodox in his religious views, he was a good farmer and acquired quite a fortune in the business. The grandfather of Colonel Edmonson, on has mother's side, Thomas Boone, was also a Baptist minister, the family thus claiming two well known pillars of the church, in the ancestarl line.

The Edmonson family, of which Colonel Edmonson is a member, consisted of ten children, five of whom are now alive. The boys were taught by their father to earn their bread by the sweat of their brow, a good old custom of the early days in Kentucky, for which generations of survivors have been duly grateful. Young Edmonson at fifteen years of age could perform his part as a hand in the field, and when he reached the age of eighteen he began life for himself as a farmer and stock-raiser. He enjoyed advantages of association with practical breeders of live stock in one of the most favored regions of the globe, and early became a judge of live stock. His attention was mainly directed to the breeding of horses and Shorthorn cattle.

Fifty years ago conditions were in many respects different from what they are to-day. In his youth, Colonel Edmonson saw droves of horses and cattle *en route* on the hoof to the markets of the East, and hogs bound across the mountains for the plantations of North and South Carolina. The railway was in its infancy, and the live-stock car was in the womb of the future. The stock was driven to the market, and the trip across the Alleghanies to Philadelphia or New York, then the leading markets, was one of the diversions of the earlier settlers of Kentucky and Tennessee. The biography of Colonel Davy Crocket, as written by himself, contains a graphic account of the adventures of the drovers of those days. As Kentucky was a favorite breeding-ground, the collection of live stock for the drive to the Atlantic coast was an important industry, and breeders could always anticipate a ready market for their product. Cincinnati was also an important and growing live-stock market for Kentucky, as the packing industry was established then, in 1816, although it never attained the prominence in the valley of the Ohio that was prophesied by the founders.

The unrivaled advantages of Kentucky as a breeding State led to importation of the best blood obtainable in the British Isles, and the auction ring possessed attractions which a young man of Colonel Edmonson's genial temperament and abilities could not resist. The horse sales of Kentucky drew visitors from many States, and the sales were rivaled in popularity only by the annua races or the county fair. Colonel Edmonson is gifted with a voice of peculiar carrying power—a voice that would be worth an independent fortune to any public speaker. This voice early attracted the attention of neighbors of the young stock-raiser, and he participated in sales of live stock previous to 1868, when he moved to Missouri, where he lived for six years. There he was again attracted to the auction ring, and became convinced that he should devote his entire time to the work. He accordingly returned to Kentucky in 1874, where auction sales were more liberally patronized, and where there was presented the most inviting field in the world for the live-stock auctioneer. Soon he arose to the first rank, and in 1881 he established headquarters in Lexington.

In order to be thoroughly prepared, Colonel Edmonson early began the collection of books and pamphlets relating to live stock, and to-day he has one of the finest private libraries upon the subject to be found in the United States. He is a constant student, and is always found on the advanced line of the work. As early as 1880, he was recognized as one of the most successful managers of the sales-ring in Kentucky and adjoining States, and he conducted many notable horse and cattle sales of the blue grass region. He was one of the first to take charge of combination sales, and is an ardent advocate of that system.

"The combination sale," said he, "is a constant incentive to the small breeder. It has developed to such a degree that there is no doubt of its continued popularity. It induces a larger attendance, wider interest, and is a quick and easy means of disposing of the surplus of a number of small herds. Many persons attend whose enthusiasm is aroused, and thus new accessions are constantly made to the business. There is a splendid field presented. Young men at combination sales to gain correct ideas as to results of different methods of breeding—a business which is now attracting more interest than ever before in America."

While living at Lexington, Kentucky, Colonel Edmonson officiated at a number of real estate auctions, which sprang into popularity in the South at that time. The figures sometimes surpassed anything ever known in the live-stock sales-ring. At Middlesboro, Kentucky, where a sale of town lots was ingeniously advertised eleven years ago, the total sales of two afternoons amounted to the handsome sum of $1,009,000. Colonel Edmonson remembers a horse sale at Lexington where one horse—Bell Boy, bred by Governor Stanford, of California, by Electioneer out of Beautiful Bells—brought $51,000. Colonel Edmonson has sold bulls for $5,000 to $10,000, and a cow, which he sold under the hammer, brought $7,500. These high prices are of recent years, and are regarded by competent authorities as the result of the wide-spread interest in the breeding of live stock. To men like Colonel Edmonson who have devoted their lives in the effort to educate the public as to the value of high-bred stock, much of the credit for the advance in prices is due. Such men also, on account of their intimate knowledge of the conditions in different regions of the country and the new demands of distant parts of the field, are a constant source of valuable information to breeders.

This information obtained in the course of their extensive travels by personal observation is the best possible information for the wide-awake breeder who is willing to adapt his methods to the actual demands.

Colonel Edmonson, like all great auctioneers, is never so happy as when in the auction ring. Experience develops within the auctioneer senses not known to the man in ordinary walks of life. He can feel by means of the psychic current the temper of the audience the moment he enters the ring, and when a bidder starts to bid he must be able to gauge his staying powers. This is one of the indispensable qualities of the successful auctioneer. Thousands of men have started in the business, but the number who have reached the top in the United States can be counted upon the fingers. The number who have attained a national reputation is still less.

In 1892 Colonel Edmonson was invited by an English syndicate to take charge of Tattersall's, a great market for fine horses, which was located in Chicago, and which attracted the attention of lovers of high-grade stock all over America. The Colonel accepted the invitation, and took up his residence in Chicago. At the end of two and a half years of his contract, on account of the Pullman strike and great financial depression throughout the United States the English company directed that the horse market be discontinued and the great building be kept open only for large exhibitions. Colonel Edmonson immediately tendered his resignation as manager, although the contract period had only half expired. The company refused to accept the resignation, and on account of the honesty and ability the manager had shown and the friendly relations between himself and his employees, they requested him to continue in charge until the five-year limit had been reached.

While in this position Colonel Edmonson lost touch with the stock circles in which he had been moving, and he decided to locate in a new field. On the 11th of April, 1898, he took up his residence in Kansas City, and opened a grain office in the Exchange building. Owing to the dishonesty of a partner, he decided to retire from grain dealing and devote his time to a work in which his heart was more deeply engaged. His first sale at Kansas City was at a noted offering of pure-bred stock by the late K. B. Armour. This was in the fall of 1898. The impression made by Colonel Edmonson was pleasing beyond expectations, and since that time he has been the recipient of calls from all the live-stock region of the country. He is also in demand as a speaker before gatherings of live-stock men. In a paper which he read before the Convention of the National Live Stock Association at Fort Worth, Texas, in 1900, upon "The Westward March of the Thoroughbred," Colonel Edmonson showed an intimate knowledge of the historical features of a most interesting subject. He also evinced that had he chosen to be a public speaker he could have scored a success. Talking of breeding and kindred subjects recently, he said:

"I believe in breeding as near to a line as possible without going so far as to injure the animal. What the country demands is strong, thoroughbred blood—quality that will command the top price. The breeders of to-day are more intelligent than the breeders of thirty years ago, and while fads and fancies and the speculative element will always be found in the industry, the tendency is steadily upward. Few breeders nowadays allow their fads to run away with their better judgment, and in cattle especially, where my attention is now largely directed, the breeding is along lines of practical purposes. There is no business in the world that offers better returns than the breeding of fine stock, and young men can select no more attractive line of work. A few years ago the beef was marketed at three, four, or five years of age; to-day the baby beef is what is called for, and at fifteen months old the steer will weigh 1,300 or 1,400 pounds and bring a higher price per pound than the steer which has reached three or four years of age. Two or three crops can be worked off in the same time as one under the old methods, and the quality is constantly improving. The time has come when quality rather than quantity is most desired, and the ranchman, instead of counting his cattle by the thousand, will estimate them by the pound. As time advances, also, land becomes more valuable, ranches become smaller, and breeding assumes its rightful place in this great and growing industry."

Colonel Edmonson is an advocate of auction sales of live stock in the country rather than in the city, as a large element of the farmers will not attend a city sale. He finds great enthusiasm throughout the West in breeding of fine stock, but is of the opinion that Texas is growing faster in fine cattle than any other State of the Union. Kentucky, in his opinion, will always be the leading breeding ground for fine horses on account of the water, the grass, and the climate. The bone of the Kentucky horse, as he regards it, out-weighs that of any other horse in the world.

Colonel Edmonson is engaged in the cattle business himself, being the owner of a herd of Herefords and a herd of Shorthorns in Texas. His long experience has made him an authority in judging cattle, and his decisions are seldom questioned.

The advancement of educational and philanthropic movements has been a marked characteristic of Colonel Edmonson since his early manhood. While living at Winchester, Kentucky, he was largely instrumental in placing the public school system upon a basis that attracted the best element in the community. Previous to this change in public sentiment, the children of the well-to-do people were sent to private schools. After his removal to Lexington, he became a director of Hamilton Female College, to which he devoted a great deal of attention. It was through his efforts that the Lexington Chautauqua Assembly was organized and permanently established, and it is to-day one of the most successful chautauquas in the country. The Industrial Home at Lexington, which has been in existence many years, owes its plan of organization to Colonel Edmonson, who held the position of president of the institution until it had passed all the breakers and a strong force of workers had gathered to uphold the cause. In the latter part of the '80's Colonel Edmonson assisted in organizing the Phœnix National Bank of Lexington, and was one of its directors for several years. In 1892 he organized the company that erected the building for the home of the bank—one of the handsomest structures in the city. He served as member of the city council of Lexington from 1888 to 1892, holding the chairmanship of three of the committees. He was frank and outspoken in his positions upon public affairs and a staunch advocate of improvement in all municipal matters.

On the 22d of November, 1864, Colonel Edmonson was united in marriage to Miss Mary Hadden of Montgomery County, Kentucky, and the union proved the greatest blessing of his life. Seven children were born as a result of the union. Dr. Milton M. Edmonson, of San Antonio, Texas, is the second son, and is one of the talented physicians of Texas. Miss Bessie E. lives with her father and mother in the elegant family home on Brooklyn Avenue, Kansas City. The hand of death fell heavily upon some of the most promising members of the household. The eldest son, James M., a rising lawyer of Dallas, Texas, was called away three years ago, and Samuel Boone Edmonson, the third son, at the age of twenty-one, after graduating at Kentucky University and the University of Chicago, was summoned to the higher life. A beloved daughter, Lelia, the wife of H. L. Milward, of Lexington. died seven years ago. Colonel and Mrs. Edmonson have been carried though these sore trials by a sustaining trust in an all-wise Providence, who ordains for the ultimate good of all His children.

Colonel Edmonson is nowhere more popular than in Kentucky where he is most intimately known, and where he spent the greater part of his business career. His life is a striking example of the triumph of honesty, perseverance and genuine talent, devoted to a noble and enduring purpose.

Wild Traits in Horses, Asses, and Swine.

Lingering Wild-Life Traits in the Horse, and Their Probable Significance.—Some of the Mental Characteristics of the Horse.—Its Disposition to Become Panic-Stricken.—Aversion to Entering Water.—Precocity of the Suckling Colt.—Nocturnal Habits of the Horse.—Its Development as a Running Machine.—The "Warts" on Its Legs.—Its Terror from Trifling Causes.—The Ass' Heritages from Its Wild Ancestors, as Seen in Certain of Its Traits.—The Alien Pig.—Its Aptitudes for Taking on Flesh and Fat, and Their Probable Origin.—Boar-Like Structure of the Pig.—Significance of Certain of Its Habits and Practices.—Its Hostility to Snakes.—Modifications in Domesticated Animals.—Their Capacity for Return to the Wild Life.

It is easy to see that the domesticated horse is of a race of animals the principal characteristics of which were developed and became fixed in the open country, upon wide-spreading plains, where there could be great freedom of action, and where there was abundant room for exploitation. If the more remote evolutionary ancestors of this race were not dwellers upon the plains of the geologically ancient world, it is evident that those of early succeeding periods must have been, for the graceful form, the activity, and the speed of the horse are results of a tremendously long racial career in such parts of the earth. It is, as we have seen, a very old race, and the horse in its present form has existed through many milleniums.

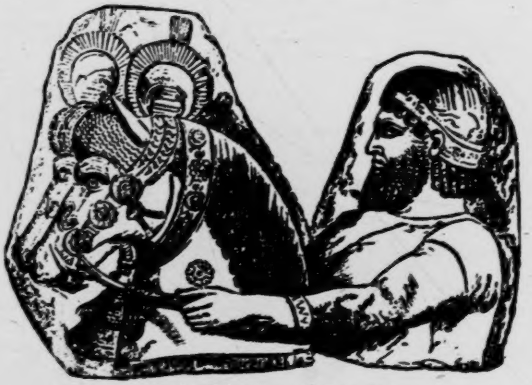
Life in the open country did not afford the horse immunity from the depredations of carnivorous animals. Indeed, its qualities of activity, endurance, and speed, and its grace of form, which we prize so highly, in a great measure are due indirectly to the attention it received from certain of such animals probably in every stage of its wild career. The voracious wolves, and their savage kindred, the wild dogs, were about the only predatory animals that were able to pursue and to hunt down the wild horse on the steppes, but there were enough of these in number to make horse life one of many tragedies. Hunting in troops, these creatures were dangerous and merciless enemies, and the most serviceable of the horse's qualities, those of speed and endurance, were highly developed and became characteristic in its efforts to escape from these murderous foes. Results of these contests upon the plains of Asia and of Europe were determined usually by the superior galloping swiftness and endurance—sometimes of the hunters and sometimes of the hunted. This conduct on the part of the gaunt and persistent wolves and dogs might not have seemed praiseworthy at the time—at least not so to the horses—but there is no doubt that we are indebted to it for the inherited swiftness and staying-power of our domesticated horses; for it is to be remembered that the influences of the struggle were at work constantly upon the physical character of the horse through many long ages.

Our horses still betray occasionally some traits to be identified with the hard experiences of their ancestors with these and other ravenous wild beasts. The long-standing and bitter feud between them and the dog species appears to have been almost entirely forgotten, for they seldom show now an instinctive enmity to dogs in the manner that cattle do so, and the two frequently become close friends. But once in a while the old dread and hostility crop out. Young horses, when surrounded by packs of foxhounds for the first time, have been known to become almost frantic. A dog appearing suddenly on the roadside when a young horse is passing at night usually will cause the latter to make a plunging swerve to the opposite side, and which is likely to develop into a runaway should the driver lose control. Other common animals, if their figures can be seen with sufficient distinctness to enable it to recognize them, seldom alarm the horse under like circumstances, but a fox sometimes may thus remind it of the ancient wolf and dog foes of its species. Charles Kingsley tells that one of his horses, when a hunted fox passed near it, became much agitated, laid back its ears, bared its teeth, and snapped its jaws together in the air in the direction of the bedraggled little creature.

But fear of wolves continues strong in the horse, which undoubtedly recognizes the difference between a wolf and a dog, for some horses, long familiar with the latter, are known to have become terrified when first they encountered a wolf. Darwin has recorded the fact that almost the only occasions upon which uninjured horses have been known to utter the frightful screams peculiar to their species was when they were closely beset by packs of wolves and in imminent danger of being dragged down by them. Many of the horses in use at ranches and upon the cattle ranges in our far western States share their riders' pleasure in hunting down a coyote to be killed at close quarters with a bull-whip or a revolver. The horse engaged in this work enters upon the chase with enthusiasm and also with something like the spirit of vengeance. It will do its best in getting up to the wretch, and if near enough will strike at the creature with its fore-feet. Probably the ancient wild horse had not much fear of a single wolf, and would easily come out victor in a contest with one, for all horses are skilful fighters with their hoofs and teeth. But a lone wolf would be in desperate straits before it would attack a horse.

Our ill-natured horses have a habit of laying back their ears when approached, and all horses do so when they fight with each other. This movement, which is also characteristic of other animals having prominent ears and using their teeth in combat, is always associated with hostile intentions, and for this reason the habitual laying back of the ears by a horse has become an accepted and seldom inaccurate indication of chronic ill-temper. However, the practice in its origin was not due essentially to ill-temper, and concerning it Darwin says that as horses use their teeth freely in fighting, they learned early in the career of their species to lay back their ears to lessen the chances of having them bitten off by their opponents.

Most young horses, like wild animals, are suspicious of any strange sound or object, and this, together with their habit of "shying," distinctly are hereditary traits due to the exigencies of horse life in the old times. The wild horse, swift of foot and keen of vision, probably did not greatly fear carnivorous animals other than those of the wolf and the dog tribes when it was out upon the open plains where it could give free swing to its legs. But some of the great cats lurked around the pools and along the watercourses, where a clump of bushes might, and no doubt often did, harbor one of these fierce foes lying in ambush and awaiting opportunity to spring upon a prey. Many and many a time must a wild horse have saved its life by a quick swerve and leap in the opposite direction the moment it heard the rustle of the leaves or the stir of the grass in such places, or observed some strange and dimly outlined object in them. Horses that were well broken, and ordinarily not easily frightened, have been known suddenly to become almost mad with terror upon hearing sounds of movement in clumps of reeds or bushes, or in tall grass, on the banks of a watercourse. Nothing had ever occurred in their lives to cause them to connect such sounds with danger to themselves, but they seemed to associate them with imminent deadly peril. Their panic, due to an abrupt awakening of a long-slumbering instinct, tells us of dire tragedies in horse life in far-off ages; for its most reasonable explanation is that when their ancestors sought the pools or the watercourses to slake their thirst, the larger carnivorous beasts, lying there await, leaped upon them from concealment in the bushes, reeds, or tall grass. Furthermore, horses often show a marked uneasiness when being ridden or driven through a



Assyrian Horses and Groom.
(From Rawlinson's "Ancient Monarchies.")

forest, especially at night, and seem to be suspicious even when passing one bordering upon the roadside. In this there would seem to be some reminiscent ideas of danger lying in such places.

Horses are averse to entering water, and do so under protest and only when man compels them to, and look with great disfavor upon the practice cattle have of standing in it up to their bodies. Evidently the experience of cattle in connection with water was different from that of the horse, but why it should have been greatly so is a difficult question; but we cannot doubt that the horse associates it with danger, as set forth above. In consequence of this, horses that are intended for use in European armies now are put through a course of special training designed to overcome this hereditary trait. When a horse takes a "bath" it is by rolling vigorously in the dust, and by rubbing its body hard against the earth; a habit that has come down through the ages from the old life upon plains and steppes, and which obviously is characteristic of such a life.

Egyptian Civilians' Horses and Chariots
(From Smith's "Bible Dictionary.")

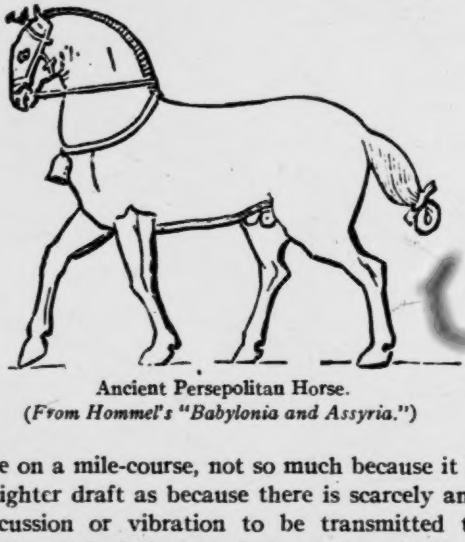
In the structure of a young colt we see a very remarkable provision of Nature for meeting the requirements of special conditions in the lives of a species of animals; a development that was essential in ancient times to the perpetuation of the horse, as well as to that of nearly all of the other herbivorous animals whose habitat was in the open, plains-like parts of the earth's surface. The colt comes into the world with legs the length of which relative to the size of the body is so great that the creature looks ridicuously like a miniature horse on stilts; and this "legginess" remains with it, but in lessening degree, throughout the entire period of its youth. Within a short time after its birth the colt can gallop with a speed that approaches the best it will be able to do at any time in its subsequent career. A story is extant of a thoroughbred colt about a month old having beaten a racehorse over a half-mile course. Its dam, a mare of some fame for her speed, with a jockey on her back, outstripped the rival horse; and her long-legged young offspring which was at her side managed to keep abreast of her through to the end of the run. This speed-precocity in the colt is another trait that has come down from its remote ancestors, and means that in the old life the young members of a troop of wild horses had to keep up with the rest in their flight from wolves or other enemies, or perish; and that the long legs of their youth, and their great endurance in running, were provided by Nature to enable them to escape from the foes of their race.

In the attitudes of horses, young and old, when their attention is attracted, or when they are gazing into the distance, we see yet other reminiscences of the wild life of their species upon plains. They hold their heads aloft boldly and alertly, and if their suspicions be excited they stand ready to dash away instantly. Their wild ancestors did likewise, ever on the alert to discover the approach of hostile creatures, and scanning the landscape out to the horizon to detect their presence. The colts betray no inclination to hide, as calves, the children of animals whose natural habitat is wooded, are so often disposed to do; for colts do not belong to a hiding race. When they lie down they do not draw themselves into a small compass, after the common bashful or timid manner of the calf, but rather ostentatiously, as if they were conscious of being able to take care of themselves, they extend their bodies and spread their long legs.

The actions of a suckling colt in connection with taking its nourishment are still further suggestive. It does not take a full meal at one sucking, as young calves do, but runs to its mother for very frequent lunches. In this we see that it was not the custom of its ancient kind to be absent from the dams, as were the young wild calves that were hidden in thickets while their parents were abroad seeking food; and the colt's practices further show that the stomachs of the wild young ones were never so loaded with milk as to embarrass them in running when their band had to get away speedily from approaching enemies by dint of hoof.

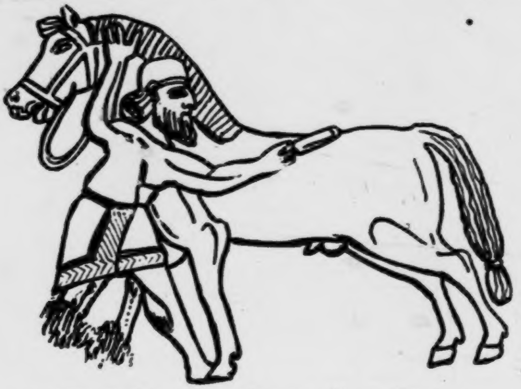
Our horses are much inclined to be nocturnal in their habits, and, unless much fatigued by the day's work, will be found feeding throughout the greater part of the night whether they be in stable or afield. This would seem to be due to an inheritance from the hunted lives of wild ancestors, for it is probable that they were subject to attack in the night almost as much as they were in the day, and that they had no greater fear of their canidæan foes in the dark than in the light.

As a running-machine the horse truly is a remarkable living mechanism, and were it not such it could not endure the wear and tear of its work upon the streets of our great cities and upon the macadamized roads of the country, where every step of its iron-shod feet is upon a hard, unyielding surface. No other living creature, excepting the ass and its half-brother, the mule, can bear very long the hammering the horse receives in its locomotion on such roadways. But if we examine the structural character of its legs we shall see why it is that the jars and vibrations do not disable it quickly and permanently. Its "pasterns" (the part immediately above the hoof) yield a little at each step and so break the force of the concussion; and the angles formed by the bones and joints of the leg are also adapted to a further lessening of the shock before it reaches the framework of the body. The effect of these structural arrangements of the leg and foot being similar to that of a series of springs, it is enabled to stand the hard usage it receives, and also to be an agreeable and comfortable animal upon which to ride. The ox and the cow stride heavily and stiffly in comparison with the step of the horse, and anyone who has tried riding either has felt the great difference between the easy, elastic movements of the latter and the jolting and jogging gaits of the cattle. These characteristics of the horse also are developments due to the circumstances of the ancient wild life of the race. Persistently hunted, and roaming over wide regions as the seasons changed, the wild horses had to travel far, and to go fast when pursued by their enemies. Often their ways were over hard and stony districts for many hours at a stretch with packs of wolves or of dogs loping after them; and for such work as this strong hoofs and springy legs were necessary to save the body from the injurious and enfeebling effects of the long-continued concussions and vibrations, and to enable the physical organization as a whole to endure the hardships of such exertions. Concussion and vibration are exhausting in their effects upon all living creatures, and to them chiefly is due the fatigue we experience in long journeys in railway cars or in other wheeled vehicles. The pneumatic tire is man's latest and best invention for lessening the effects of concussion and vibration, and a racing sulky equipped with them is worth a few seconds of time on a mile-course, not so much because it is of lighter draft as because there is scarcely any concussion or vibration to be transmitted to the horse's body by the shafts of the vehicle or by the hitching gear. But the horse in its own mechanism has a structural form, developed to meet exigencies in the career of its race, that lessens these effects to an extent almost as great as they would be by pneumatic hoofs and legs.



Ancient Persepolitan Horse.
(From Hommel's "Babylonia and Assyria.")

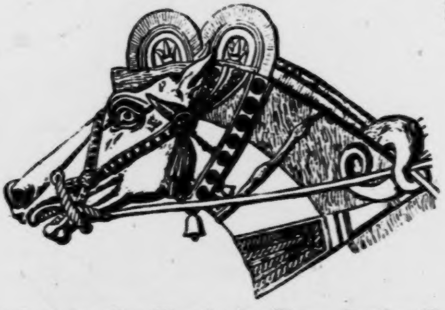
Every horse has on its legs certain wart-like patches, or callosities. On the fore-legs they are above the miscalled "knee," and on the hind-legs are below the hock. They do not appear to serve any purpose, and no satisfactory explanation of their presence or utility has been advanced. If they are mere "warts" or "moles" analogous to those which disfigure many human bodies, it would be difficult to account for their appearance in almost exactly the same places on the legs of every horse. However, it would seem that these blemishes would not be there unless they were, or have been in the past, necessary to the animal's physical economy; and therefore probability suggests that they are vestiges of what we might call an "organ" that fell into disuse long ago, or of the effects of some ancient habit of which horses now betray no trace.


Babylonian Groom Currycombing a Horse.
(From Rawlinson's "Ancient Monarchies.")

The horse has been greatly developed and improved physically and, we may say, "mentally" also, by man. It is larger than its wild ancestors, has a finer-shaped head, and proportionally somewhat longer legs; and no doubt is more intelligent. But, as we have seen, vestiges more or less distinct, of many wild traits of the species, still linger with it.

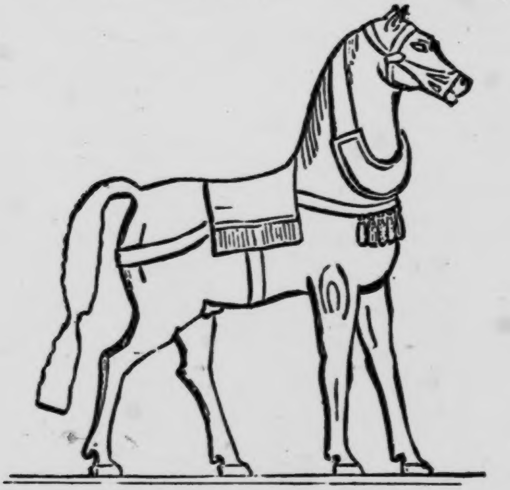
From an early stage in their experience with it as their servant, men have been at a loss to account for the disposition of the horse suddenly to take fright without obvious cause, or from the most trivial things, and to dash away. Sometimes its panics will be due to objects or sounds to which at other times it is indifferent. Now, it will be as brave as the bravest; again, spasmodically it will appear as timid as the most spiritless sheep. The runaway horse seems mad and blind with terror, and in its frenzied efforts to get away is oblivious of everything else, and may disable or kill itself. It will plunge headlong against whatever stands in its way, be it another animal of its kind, a stout fence, a heavy wall, or even a massive building. Because of this apparent utter loss of the instinct of self-preservation at such times, and of certain minor eccentricities manifested occasionally, some of our present-time horsemen of life-long experience with it, declare that the horse mentally is a combination of fool and maniac. But remembering that the period of its domestication is as but a day in comparison with the ages through which its race has existed upon the earth, and was incessantly hunted and hounded by formidable foes, may we not attribute correctly these eccentricities of the horse to impulsive awakenings of a slumbering instinct inherited from the old wild life, such as that which sometimes is manifested, as already mentioned, by individuals of the species in the form of intense terror induced by the rustling of leaves, or by sounds of movements in tall grass, on the banks of watercourses?

The humble, dispirited, and, by many people, despised, ass is an old-timer in the service of man, and was so when certain of its masters were building the Pyramids; yet it retains characteristics and traits that bear testimony to their origin in highland regions of the earth. One of the more significant of these is its surefootedness, which enables it and its hybrid offspring, the mule, to carry burdens upon mountain roads and trails so narrow and precipitous that most other animals would shrink from them and fall back—if they had not already fallen downward. It is almost the equal of the goat in climbing a mountain-side, and its wonderfully steady nerves keep it from losing its head on the most perilous trail. It is this remarkable faculty that is held as strongly indicating that the domesticated ass


Head of an Assyrian War-chariot Horse, showing Head-gear with Bells Attached.
(From Ragozin's "Story of Assyria.")

is not of the stock of any of the existing species of wild asses that roam the steppes of west-central, and the plains of southwestern, Asia, but of some variety that had dwelt for ages in a mountainous country, and which now is extinct, or which may be that of the Abyssinian ass.

Like the goat, the ass suggests the rough character of its ancestral home by its willingness under necessity to eat very hard food, such as horses and cattle would disdain to notice; even thistles then being regarded by it as acceptable provender. This shows that its ancestors were forced to eat pretty much every sort of the sparse vegetation that grew in their elevated and broken haunts. The loud, disagreeable, reverberating voice of the creature doubtless remains unchanged, and in ancient times became keyed up to its penetrating pitch by individuals advertising with it their presence to their comrades scattered around them in the mountains. Mountain animals do most of their looking in a downward direction, and so we find that the domesticated ass does not throw up its head high to sniff the air and to gaze over the landscape after the fashion habitual to its proud relative, the horse; nor are its eyes so prominent, nor so quick in action as are those of the horse, nor is its sight so good even if it were not more or less obstructed by the overhanging eyebrows. These differences are held to imply that the wild progenitors of the domesticated ass depended more upon hearing than upon sight to keep in touch with their associates, and to detect the approach or the proximity of their foes. Therefore the large and freely-moving ears of the creature are believed to be due to such an ancestral practice; and in their expansion we have the principle of the megaphone. As we have seen in a preceding section of this volume, the ears of the several species of wild asses that inhabit the steppes of Asia more nearly resemble those of the horse in size and form—a difference evidently due to the conditions and circumstances of a long-continued existence in comparatively open and level countries.



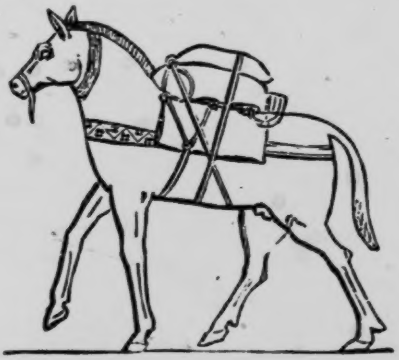
Babylonian Horse.
(From Rawlinson's "Ancient Monarchies.")

The aversion of the ass to entering water is greater than in any other of our live-stock animals. An explanation that has been advanced to account for this is that it originated among the Egyptian domesticated asses, and was due to their unhappy experience with the crocodiles that infested Egyptian rivers and preyed upon animals that came to the streams for drink. But, while they may have feared the crocodiles, these reptiles are not in the habit of attacking things quite so large, and it is altogether probable that the aversion, as with the horse and the sheep and the goat, is due to circumstances connected with the wild life. The ass also rolls and rubs its body upon the ground, as the horse does, which is another habit of its ancestors that it retains.

The dispirited, dejected air of the proverbially patient ass is almost dismal and has no counterpart among our other domestic animals. It is distinctly not an inherited trait, but one due to its long and hard service in captivity and to much harsh treatment. Its wild kindred are far from lacking in spirit and in activity, and upon occasion are combative, to the extent at least of vigorously defending themselves when there is no chance for escape by running, and of resisting the attempts of men to capture them. But the domesticated donkey appears to be conscious that mankind holds it in undeserved derision and contempt, and also to be grieving over the injustice of it. It has long been proverbial for stupidity also; but some zoölogical authorities insist that naturally it is as intelligent an animal as the horse, more trustworthy, and really has more self-reliance and native independence of character.

The pig largely is a sort of alien among our live-stock animals, and one of the several characteristics that place it so much apart is its inability to be useful during life. Practically it is of no service whatever to man until after its death, but rather a burden; and it would be of no very great utility then were it not for the changes wrought in its physical character and in its habits since it passed into captivity. The vitally important of these changes resulted in the present great development of its ancient aptitude to taking on flesh and fat under favorable opportunities for doing so. The wild boars from which the pigs of the western nations were derived were of one or more of the species that still inhabit the so-called temperate zones of Asia and of Europe, in which latitudes they are subject to rigors of winter that not infrequently are protracted and severe. Now, the wild boar, of all of the species of wild animals represented in the group that constitutes our live stock, was the one sure to experience the hardest times in a hard winter. While it is classified as an omniverous beast, it does not eat everything. It does not graze in the manner that horses, asses, cattle, sheep, and goats do, which animals usually can find more or less dead grass or other nutritious vegetation in any kind of a winter; and if it resorted to dead leaves and stalks it would find them next to nothing as provender, even if it could eat and digest them. Its food consists chiefly of nuts and seeds (mast), and roots which it has to find by rooting; but occasionally it eats the flesh of small creatures that happen to fall in its way—for the boar makes no pretensions to being a successful hunter.

While the remarkable proclivity of the domesticated pig to accumulate flesh and fat, especially the latter, is to a great extent a consequence of human intervention in its affairs, this is, as we shall see, primarily one that it inherited from its wild ancestors. Excepting in the season of the year when its kind of food is plentiful, the wild boar of the present time is a rather scraggy, gaunt, and tough-muscled creature, but it has the characteristic predilection to storing up flesh and fat for future emergencies, which is one that has been essential to the preservation of every species of wild boar, the habitat of which has been in the latitudes in which the winter season becomes severe. Throughout the spring and summer seasons the wild boar progenitors of our pigs, by diligent rooting and skirmishing around, together with a little scavenging, could manage to make a fair living, yet not a riotous one abounding with luxuries. But when the autumn came, and nuts and seeds strewed the ground, they revelled in plenty. Moreover, in this season, some of their enemies, such as the bears, also were feasting upon Nature's autumn bounties, and therefore were not making their usual extent of trouble among the wild swine. The result of these conditions was that in the interval between the fall of the mast and the first severe weather, the prudent and diligent boars had become well-fleshed and rounded out with fat, and prepared to face the winter's hardships; but the laggards that had neglected their opportunities for thus fortifying themselves stood a poor show for being among those present at the opening of the following spring. While the ground was frozen, as it was through much of the winter season, the boars could not root for food, and so they had to take what they could find beneath the snow or on the hard ground, in the meantime making up for the deficiency in food by drawing upon their stores of fat that had been accumulated in the previous autumn. But the most trying time came toward the close of the winter, when the earth still was hard with frost, and every acorn and nut in the forest had been picked up by the droves of hungry searchers. Now, many of these were very lean and gaunt,



Babylonian Pack-Mule—Showing Method of Hitching the Load.
(From Houghton's "History of the Ancients.")

and their inward stores of fat exhausted. Therefore, those that still had some reserves in their savings banks when their fellows had become insolvent, would, in an unusually protracted and severe winter, be the survivors. These naturally would transmit their fattening tendencies to their descendants, and so, in the course of generations, these tendencies would become fixed in the species. The unnatural act, which is by no means a practice, of pigs eating their young soon after the latter's birth, probably is traceable to emergencies in the old life when wild boars were forced to cannibality by dire stress of privation. Some other animals share with the pigs the aptitude for laying by in the plentiful season stores of fat as reserves against the hardships of lean times; but in no other has man taken advantage of it as he has in the case of the swine.

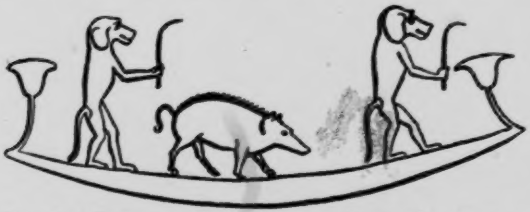
Assyrian Closed Carriage Drawn by Mules.
(*From Smith's "Bible Dictionary."*)

Elsewhere we have referred to the remarkable fecundity of our pigs, which are by far the most prolific of all of our domesticated animals. Indeed, none of the mammals, wild or tame, is more so; for the sow will bear litters in some instances so large in number that the young have to take turns at sucking. It is usually the case that there is a "runt" or weakling in a litter of average size, but in frequent instances every suckling in even the largest families has been sound and robust. To the farmers and other pork-producers this fertility is a very important and profitable quality, but to the student of the pig's history it points unmistakably to murderously tragic circumstances besetting the life and state of its wild ancestors.

Of an established species of animals in freedom the number of individuals remains fairly constant under the ordinary conditions of their existence. These large litters of young pigs imply that their free ancestors suffered great losses by the depredations of carnivorous animals, and that such losses were inevitable consequences of some of the ordinary conditions of life by which the creatures were surrounded. Therefore Nature must make some special provisions not only for preventing the extermination of this species, but to maintain its constancy of number. Young wild pigs are exposed to many dangers. A litter cannot be left in hiding, but must go with the mother; the young proclaim their presence by grunting and by their appeals for nourishment, and are of a size that can be dealt by the smaller as well as by the larger carnivora; and can make but feeble, if any, defense in their own behalf. Hence the large litters were in compensation for the exceptionally heavy losses to which all of the varieties of the wild boar are subjected; that is to say, the rate of increase had to be adjusted to the amount of annual waste. It is probable that the losses proportionately were heavier in ancient times, when carnivorous creatures were more numerous, than they are at present.

We have seen an estimate of what the progeny of one domesticated sow could accomplish by way of multiplying and replenishing within a few generations. The wild ones could do as well at least under the same conditions of security. Therefore, had not the waste among them been excessive, and had their fecundity remained the same, they would have taken possession of the earth in ancient times and literally swarmed over it. They would have crowded out all other animals and made this a boar earth, and finally, in the fierce struggle for sustenance, would have turned upon and devoured their own kind. Then there would have been a world of pigs eating each other that the race might live to breed that there might be more pigs to eat, and so on and on until Nature became weary and stamped them out.

It is likely that among the wild ancestors of our pig not more than one-fifth of those born into the world survived the first year. Indeed, it may be stated as a sound general proposition that all animals born in litters—say, of more than triplets—have, as a group, very poor prospects of long life, and that these prospects diminish as the number of individuals in the litter is increased. The frightful mortality among the wild boars that is implied by the fecundity of the race was due to violence in nearly every instance, and while it was much greater among the young, it was continued among the mature. Many of the adult males perished in combat with their own kind, for they were ready at all times for a fight, whether with a common foe or with a brother in their ranks.

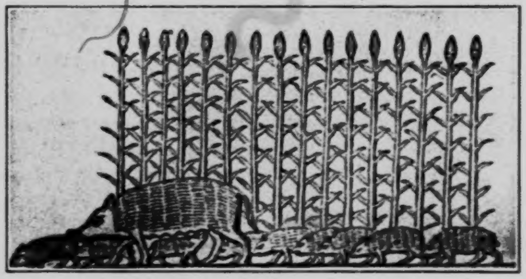


Egyptian Representation of Baboons Conducting Back to Earth a Wicked and Condemned Soul in the Form of a Pig.
(From Houghton's "History of the Ancients.")

In this mortality the wild swine paid dearly for their preference for the jungle on the borders of swampy districts, for thickets, and for the tangle and undergrowth of the forests and of the banks of watercourses, as living-places, although the open country might not have been much better for them, so far as mortality was concerned. The domesticated pig during its many years of captivity has undergone considerable changes in form that partly are due to the changed conditions under which it has lived, but principally to results of breeding under man's control. But concealed beneath its heavy jacket of fat remains the practically unchanged original frame-work of the species. A very lean pig shows plainly that it is built for forcing its way through undergrowths, canebrakes, and other jungles, the cone-like form of its head being almost perfectly adapted to splitting apart the close-set growths, while the thick and tough hide on its neck, shoulders, and back can stand very hard usage. The bristly hair, however, has become much thinned, and is not the protection against thorns and snags that the wild boar's thick covering of bristles upon the upper parts of its neck and shoulders affords. The wild boar will plunge at headlong speed into dense masses of thorny thickets and bramble where no other animal of its size and weight could follow, and get through but little, if any, the worse for wear and tear.

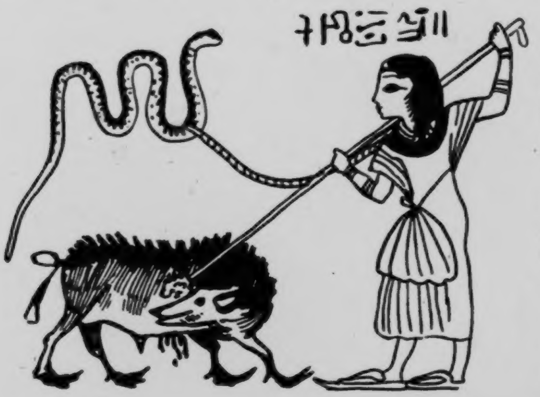
It is not only in the structure of the domesticated pig that we see its identity with the wild boar, nor in its fecundity, but also in certain of its habits. That of wallowing in the mire is one that has been characteristic of the race from the earliest known period in its history. By this it cools its body in a warm day, and when the mud stiffens it encases the vermin to which the pig serves as a host, and both are removed by rubbing the body against trees or posts. Like the wild species, the domesticated pig is courageous, although it has no such occasions for fighting as those that turned up nearly every day in the stormy lives of its ancestors. Usually it does not lose its wits in the presence of real or imaginary danger, and is not often stampeded. When an individual or a group be taken unawares the emotion, which is manifested by snorts, appears to be more one of surprise or of astonishment than of fear.

But when a pig gets into difficulties involving direct contact of its body with anything that restrains its movements it becomes hysterically apprehensive, and proclaims its trouble and fears to the world by a series of shrill squeals. The other domestic animals usually endure such situations in comparative, if not total, silence.



Babylonian Representation of a Wild Sow and Her Pigs.
(From Hommel's "Babylonians and Assyrians.")

But the pig, although its embarrassment may be of the most trivial character, utters outcries that can be heard a mile or more in every direction; "a pig under a gate" having become a forceful figure of speech denoting great noise for small cause. Among its free ancestors these were appeals for help. The wild boars, and pigs that have escaped from captivity in various parts of the world, wander in droves for mutual protection; and when one is attacked the others stand by it and defend it. This trait, while characteristic in varying degree of many species of wild animals, appears to have had a much fuller and more effective development in the pig's wild ancestors than in those of the horse, the cow, or the sheep. So, when some luckless member of a roaming drove of wild pigs was attacked by a hungry carnivorous beast, or got into any other perilous scrape, it would thus call its brethren to come to its rescue, which they would do with admirable loyalty and courage. Therefore, the squealing of a pig in trouble is a lingering testimony to the valorous deeds of its ancestors in emergencies in which their brethren were imperiled. It would not squeal unless it had some reason for believing the cries would bring it help; its uproar being a lively expression of implicit faith in the sympathetic, courageous, and other noble qualities of its kindred. Even now among barnyard swine the old impulse to respond to such appeals not infrequently is awakened and acted upon when a pig makes known that it is in difficulty; but this is quite different from the maternal instinct that impels the sow resolutely and often fiercely to defend her sucklings.



Egyptian Symbolism Representing a Deceased Person Piercing a Pig with a Spear.
(From Budge's "Book of the Dead," or "Egyptian Bible.")

The pig's habit of apparently purposeless and almost continually grunting while it is awake and going about is another that has come down to it from its remote ancestors, and that further suggests to us some of the conditions of their primitive life. In the old times a drove of wild boars feeding where the grass was tall or in thickets of underbrush would become scattered, and the individuals thus would lose sight of each other, although still within hearing distance. Therefore the grunt came into use to enable each pig to apprise its comrades hidden around it of its whereabouts, and to keep in touch with the organization as a whole; variations from the ordinary grunt in pitch and emphasis having their special implications. Thus there was maintained throughout the scattered drove a system of communications intended to prevent individuals from becoming detached and lost, and by which all quickly could be brought together to move to another locality, to retire for rest, or to meet an emergency in the community's affairs.

The pig is an inveterate foe of snakes and rejoices to have an opportunity to kill one. Others of the smaller creatures of the field or woodland may or may not attract its hostile attention, but a snake invariably does so. No doubt the reader has noticed the eager haste in which a pig attacks one, and in which plainly is to be seen a spirit of angry resentment born of inherited animosity towards this silent and insidious creeping thing. Curiously enough, too, the snake seems to know that it has met its match and that doting death is near when it sees the bristling pig bearing down upon it. It is probable that in the old-time life the infant members of a community of boars, that were so easily to be approached and seized by it, had no more dangerous neighbor than the serpent; and that multitudes of sucking pigs were destroyed by this legendary enemy of all living creatures. It is also probable that in the earlier times the gallant ancestors of our domestic pig bore the brunt of the deadly war between reptiles and mammals that began so long ago, has been waged unremittingly through the ages, and that is still continued, but reduced in our own country to occasional "bush-whacking" encounters between individuals of the two classes.

Since man's rule over his fellow-creatures began, his efforts in dealing with the animals of the earth have been divided between destruction of the lower forms and of others he regarded as hostile to his interests, and the improvement of those that he attached to his person and to his fortunes by domestication. In this process of improvement there have been compressed into a brief period of time certain physical changes which, under the conditions of natural evolution, would have occupied untold centuries. Some of these never would have taken place in the natural life, for their tendency is toward unfitting the animals for survival under natural conditions, and may already have disqualified one or two of the species for a return to such a life. So significant are these results, that Darwin employed them as furnishing some of the conclusive testimony for the theory of natural selection, believing that what had been attained in a period of time comparatively so brief by artificial or human selection could be accomplished in a longer period by natural selection.

It is the common opinion among writers on these subjects that the sheep would not survive a return to the wild life, and it is said that there is no known instance of domesticated sheep having done so. The growth of wool on many varieites has been so greatly developed that it is burdensome to the creatures and incapacitates them for getting about and taking care of themselves. This, and their loss of courage and combativeness, and the feebleness of so many of the ewes at the critical time of reproduction, it is thought would lead to their extinction before they could recover enough of what they have lost to get upon their wild legs again. The highly-bred swine, which are mere bales or packages of flesh and fat, would, it would seem, have rather poor prospects of survival if turned adrift. It is true that soon they would lose much of their burden, but they have become physically enfeebled by the artificial conditions of their lives to such an extent that their ability to take care of themselves under natural conditions is very doubtful. But the old, unimproved stock, as we see in the Alleghany "razor-backs," and in the "wild pigs" of South America and of the Pacific Islands, found no great difficulty in separating themselves from mankind and civilization. In these much of the form of the wild boar has been recovered and most of its habits resumed. The goat would have less trouble than would any of the others, for it never has been completely domesticated, and many of its tribe have been known to return to the wild life in mountainous countries. The ass no doubt could do likewise, and probably would be happier if it were allowed to go. Both horses and cattle have demonstrated, but under rather favorable conditions, their capacity to take up the life of their ancestors, and we have no good reasons for believing that many, if not all, of the modern breeds would be perpetuated if they were left to shift for themselves. However, considerations such as these are of no practical moment now, for the gates through which these animals were driven into captivity have been closed and barred, never to be opened again.

Hiram E. Crowley.

The gift of oratory is one of the most precious gifts bestowed upon man. In all ages of history the choicest garlands have been showered upon the orator. The speaker who thrills a vast audience with the breath of his eloquence lives for generations in the hearts of his countrymen, and his name is heralded throughout the world. It is said of Daniel O'Connell that 200,000 people assembled at one of the great meetings which he addressed, and his burning words were heard on that occasion by 30,000 listeners. The mighty throng that pressed toward the platform, beyond the sound of the speaker's voice, stood in profound silence during the entire time of the delivery. Surely here was one of the greatest tributes ever offered at the shrine of oratory.

The orator who is actuated by just principles and inspired by a noble ambition is one of the greatest benefactors that any country can claim. Greece rose to heights of achievement when Demosthenes occcupied the rostrum, which were never again attained in a country celebrated for wise philosophers and far-seeing statesmen. The thirteen colonies of America responded to the burning appeal of Patrick Henry as to no other voice that was heard on the western shores of the Atlantic during the years of the Revolution. The orators have been among the mightiest agencies for the advancement of civilization. As Carlyle says of the orator, "He is God's own anointed king, whose single word melts all wills into his."

The ordinary man does little thinking for himself. He receives his ideas from those about him, and the platform, when upheld by worthy representatives, will always stand as one of the most convincing elements in directing and controlling the opinions of men.

In the American Republic, it is of the greatest importance that the spirit of oratory be encouraged. While the power of the press is far-reaching, and its educative force is at times witnessed in mighty changes of public sentiment, the newspaper lacks the magnetic, stimulating effect of the public speaker who conscientiously labors for the public good, and sways his audience at his will.

Several years ago the writer was present at a great gathering of live-stock men, and for the first time listened to addresses by speakers who had devoted their lives to the ranch and the range. He was agreeably surprised at the ability of these men to express themselves intelligently and clearly upon any subject that was presented; in fact, the speakers compared favorably in address and in power of holding the attention of the audience with any other class of men appearing in convention anywhere. The observations of several days created an impression, since confirmed, that among the live-stock men of the United States are some of the brightest minds to be found in the business world; and in point of ability upon the platform there are live-stock men who are not surpassed by the most prominent names of the pulpit or the bar. Had these men devoted their attention to any one of the professions they would have added new luster to the calling, and attained any position desired. They have the charm of manner, the musical voice, the power of condensation, and the intuitive knowledge of human nature which are necessary in moving others to action. At the same time these leaders have a sincerity and earnestness of presentation which seldom fail to convince and crown their efforts with merited success.

Texas live-stock circles have produced several public speakers with the genius to sound the entire gamut of emotion. At times the voice comes from the prairie, with its ever-pervading sense of loneliness and its indescribable immensity; and again it is heard from the thinly settled district which a few decades ago first responded to the step of the white man. This talent of the orator is one of the mysteries, explained only by a dimly understood law of heredity. It depends not upon education, such as is obtained through study of books, for thousands have sought it there, and retired in bitter disappointment. Where the talent was acquired by H. E. Crowley, of Midland, Texas, neither Mr. Crowley nor his friends pretend to say. That he has it, is universally acknowledged by many competent judges who have heard him from the platform. If occasion arises calling for an address, not only before an assembly of cattlemen, but an assembly of any character whatsoever, the name of Mr. Crowley is a favorite name to conjure with, and fortunate is he in rising to the needs of the hour. Ideas with appropriate language in which to clothe them, flow to him so readily that the platform appears to be his natural place. He possesses the faculty so greatly desired by public speakers, of thinking on his feet, so that he has never found it necessary to write out an address, whatever may be its importance, in advance of presentation, and therefore he never makes use of manuscript. In the court-room, as before a crowded convention of cattlemen, Mr. Crowley is perfectly at home, and without apparent effort he wins his way to all hearts. It is the spontaneous expression of a facility of thought and language with which he was born.

As a member of the Twenty-fifth General Assembly of Texas in 1897 and 1898, Mr. Crowley first came into prominence in the State as a public speaker. He was elected as sole representative of thirty counties of West Texas—a territory larger than many of the individual States of the Union. Being a new member of the House of Representatives Mr. Crowley remained for several weeks quietly in his seat. While he was making no speeches, he kept a close watch on the proceedings. His attention was attracted by a bill—a favorite measure of the Governor of the State—providing for a penalty upon any land-owner or lessee who should plant Johnson grass or permit it to grow on the premises. In the area of 300 square miles represented by Mr. Crowley, any sort of grass is welcomed as essential for food supply for live stock, and at an opportune moment in the discussion of the measure, the representative from West Texas presented an amendment exempting thirty counties of the State from the operation of the bill. Half a dozen similar amendments to the bill had been previously presented and defeated, but now a new champion was upon the floor. In an address which claimed the attention of every man in the House, and immediately brought him to the front as one of the most effective speakers of the Legislature, the new member from West Texas carried all opposition before him and won the day. Several times during the session of the Legislature Mr. Crowley gave his full support to measures, in each case with the same gratifying result. Owing to private business he declined to continue in politics after the close of his legislative term, although his friends had learned, from the success of the venture, that there is nothing Mr. Crowley may desire politically which he may not reasonably hope to attain.

H. E. Crowley is a native of Texas, and has spent his entire life in the State. Born in Tarrant County, November, 1863, Mr. Crowley is now past forty years of age, and has attained a position through his own efforts which any man may justly regard with pride. As a cattleman a man of business, a lawyer, and a public speaker he has scored a pronounced success. Very early he recognized that the object of life is to grow. From his youth he had responsibility thrust upon him, and although the ordinary opportunities of education were in his case sadly lacking, he not only acquired in large measure while on the cattle range a generous fund of knowledge, but he took up the study of law, passed the examination at the bar, and quickly gained a standing as one of the most successful lawyers of West Texas. At the present time he is attorney for the Texas & Pacific Railway in three counties, and is owner or manager of three cattle ranches, which require a large share of his attention. Filling also a position as member of the Executive Committee of the Texas Cattle Raisers' Association, Mr. Crowley is a busy man, fertile in expedients, quick in action, and governed by a desire at all times to advance the permanent interest of the community. Few men could have accomplished as much as Mr. Crowley with the facilities at his command during the formative years of his career. Sustained fortunately by an unswerving purpose to go forward, and hopeful even when the skies were darkest, he safely passed the breakers, and his ship is now moored in a peaceful harbor.

The Civil War brought misfortune to the Crowley family. Captain Hiram Crowley, the father, gave up his life in the conflict, leaving a widow and two sons, Archibald F. and Hiram Edwin. Captain Crowley, who engaged on the side of the Confederacy, died from wounds received in a battle at Yellow Bayou, Louisiana, May, 1864, when Hiram was an infant, and the lad lost his mother when he was a boy of fifteen years, just entering actively upon the life of the range. The two brothers began operations together when Hiram was only thirteen years of age, and through all the years that have since elapsed they have maintained a business partnership. During the latter half of the '70's the name of the Crowley boys was well known in West Texas, and their ranch in Palo Pinto County was designated as the "Orphan Boys' Ranch.' The quest for range led them westward, and at present the principal ranch of the brothers is on the western line of Texas. Mr. Crowley has made his home in Midland for fifteen years past.

As is intimated above, the school facilities of West Texas—comprising the entire western half of the State—during the years following the Civil War, were not to be compared with those in existence to-day, when the Texas public school fund is the largest of any State of the Union. The country was sparsely settled, the people were obliged to devote almost their entire energies to the mere problem of existence, and the boy was fortunate who could attend the rude district school with its poorly-paid teacher even for a few consecutive weeks in a year.

The Crowley brothers worked as farm hands at an age when boys nowadays are at school or at play. Mrs. Crowley endeavored to maintain the farm, and her sons had become thoroughly acquainted with farm operations when the brothers decided to engage in the cattle business. In the year 1877 they started with a small herd of 100 cattle for Palo Pinto County. These cattle belonged to the brothers and Dr. J. B. McMurray, to whom Mrs. Crowley had been united in marriage. A year later Mrs. Crowley died, and the step-father's interest in the herd was purchased by the brothers, with a small legacy received from their grandfather's estate. This grandfather was Colonel A. F. Leonard, a prominent stockman of Tarrant County, and one of the first representatives of the county in the State Legislature.

The home of the Crowley brothers in Palo Pinto County was in a thriving cattle country and for five years Hiram made his headquarters in a log cabin, gaining knowledge of the range. He was, from his earliest recollection, a good horseback rider, and before he reached twenty years of age he was one of the most expert "broncho-busters" in West Texas. Although his experience in riding bronchos extended over a period of twenty years and he mastered hundreds of these remarkable horses, he was never thrown.

The record can scarcely be equaled in Texas, but it was due to early and intimate acquaintance with the horse and a power over the creature possessed by few men.

One of the experiences of the Palo Pinto range made a lasting impression on the mind of Mr. Crowley. "I was a boy at the time," said he, "and my step-father and I were hauling cedar poles from the head of the cañon to build a corral. One day while my stepfather was riding ahead on horseback, pointing out the road, and I was driving the team, an accident occurred that cost me more pain than I could describe. There was no bed on the wagon, and I was standing on the front hounds. An unusually severe jolt caused the coupling-pin to drop out, and I was thrown to the ground. My foot caught in the hounds, the front wheels of the wagon passed over me, and I was dragged along, expecting to meet certain death. The flesh was torn off my back and elbows, but fortunately my foot was finally jarred loose, and I lay on the ground while the team continued to proceed. My step-father looked back and was shocked at the sight that met his eyes. Before he reached my side I found that both the bones of my leg were broken just above the ankle, and I had pulled off my boot. We were five miles from our cabin, which we reached with great difficulty. My mother was dead, and I had no nurse. My step-father set the leg, bound it up in splints with some pieces of cloth we found in the bottom of my mother's trunk, and for weeks I nursed a sore back and a broken leg."

Mr. Crowley says that many days during his confinement he remained alone in the cabin from daylight till dark, as the presence of his step-father was required elsewhere, but the thought of giving away to discouragement never entered his mind. The boys of West Texas were not made of that sort of material. With sublime confidence in the outcome, he looked only to the future, and soon the clouds began to scatter. Settlers on the Texas frontier had little use for drugs in any form, and the common method of treating wounds was to wash them with water from the nearest running stream. The per centage of recoveries was much greater than at the present day. The human body, trained in the rough life of the cow camp and nurtured by the simple food, consisting principally of bread, meat, and coffee, appears to be proof against nearly all the physical ills of humanity. Mr. Crowley's recovery was perfect, although he had not even the use of a crutch when he was able to move about. An old kitchen chair proved a welcome substitute.

This incident is related in order that the reader may understand the conditions through which many of the successful live-stock men have passed. The individual who graduated from this school was prepared for any circumstance fortune might present. Herein do we find the secret of their success.

"When I came upon the range," said Mr. Crowley, "the battle had been fought, and the smoke had cleared away. No braver and nobler souls ever lived than the men who sustained the brunt of the fight in West Texas, and those of them now alive and in the enjoyment of fortune, earned every dollar they have. It was the duty of the generation to which I belong to give our mite in clearing up the *debris*, and to-day the road is made easy for thousands of farmers and small live-stock raisers who are looking to West Texas as their future home. The culmination of the live-stock business in Texas is in the man who will combine farming and stock-raising, and on the great plains of Texas will be found, in years to come, the most independent body of men in the world. Many of these men will be the descendants of the pioneers, and while the younger generation is not obliged to endure privations of their fathers, the same blood courses in their veins that flowed in the veins of the men who made this country what it is. I have perfect faith that the sons will be able to give a good account of themselves."

Mr. Crowley developed the commercial instinct very soon after starting in the cattle business, and while his brother attended to the buying and trading in the vicinity of the ranch, Hiram went upon the trail and attended to the marketing. Fort Worth was the principal selling point, although occasionally the young cowman continued through to Kansas City, St. Louis, or Chicago. His trips to the great live-stock centers brought him into contact with men of experience and trade ability, and the older heads took pleasure in instructing the young men in intricacies of the market. There is no class of men with more generous sympathies than the cowmen, and the experiences and acquaintances of the trail and market were of great value to Mr. Crowley.

The six years from 1883 and 1889 witnessed a gratifying growth in the business of the Crowley brothers. They merged their interests with those of the Liberty Cattle Company, disposing of their holdings in 1886 at a handsome profit, while the company was operating on the Clear Fork of the Brazos River. Next they maintained a ranch for young steers at the head of

Walnut Creek in Palo Pinto County, also opening a ranch in Gaines County, 100 miles north of Midland, where they began with 750 stock cattle. In 1889 Hiram disposed of his interest to his brother, and locating in Midland engaged in the mercantile business. His new venture yielded a profit of $10,000 during the first three years. At this time, while apparently on the flood-tide of prosperity, the hard-earned accumulations of fifteen years were swept way in one hour. A fire destroyed the mercantile establishment and its contents. A large consignment of goods had previously been received, and Mr. Crowley carried no insurance whatever. As a result of the visitation he found himself $8,000 in debt, and was brought face to face with an obligation which he felt in honor bound to pay, and which he ultimately discharged, dollar for dollar.

When upon the range Mr. Crowley had taken special interest in contracts for delivery of cattle that were in vogue among cattlemen, and he became so well versed in contracts that his services were often called upon in drawing up these instruments. He was thus led gradually to the study of the law, and now that he was obliged to begin his business life all over again, the law presented a welcome avenue. He immediately entered with fresh zeal upon a study that he had commenced in the cow camp. Applying to Judge Kennedy, of the District Court, a distinguished jurist of Texas, Mr. Crowley was given a temporary license to practice law. In this instance the traditional shingle attracted business from the day it was first displayed, and the earnestness and ability of the attorney soon placed in his hands the coveted sheepskin. In an animated oral examination of two hours and fifteen minutes for the bar, Mr. Crowley missed answering correctly only four questions. Two months later, in November, 1892, he was elected County Attorney for four counties, only four votes being cast against him, and soon was pitted against advocates of long standing in the courts.

The experience proved exactly what was needed by the young attorney, and contact with trained minds acted as a wonderful stimulus. For several years Mr. Crowley was identified with fully ninety per cent of the cases brought before the courts in which he appeared; but he was being again attracted into the live-stock business on a larger scale than before, and gradually retired from general law practice. The handling of cattle—his first love—presented inducements he could not resist, and the instinct of the cowman, developed through several generations of pioneer ancestors, reasserted itself. Mr. Crowley is never more at home than when in the saddle, and although he gathers inspiration from a crowded court-room or when looking into the upturned faces of an appreciative audience, the spirit of the range, once fully imbibed, can never be successfully resisted. To the man born and reared on the prairie a voice speaks which will not be stilled; a voice which penetrates the hidden recesses of the heart and compels a willing ear. A true son of the prairie, Mr. Crowley will never know the time when the invitation to the range will not find response in his inmost nature. In recalling scenes of his youth his face is as "one who beholds celestial visions," and no object appeals to his imagination as do the trials and triumphs of the pioneer cowmen.

Mr. Crowley was married in 1888 to Miss Katie Moore, daughter of Robert Moore, a building contractor, of Chattanooga, Tennessee. The couple have been blessed with four children: Hiram Franklin, America Ruth, Henry Grady, and Myrtle Irene.

Mr. Crowley is a believer in a doctrine which is receiving new advocates from educational ranks yearly, that the practical side of education should accompany the theoretical, and that it is a grave mistake to turn loose upon the world thousands of immature graduates who are totally unprepared to take care of themselves. He believes in discovering the natural aptitude of the child, and encouraging an expression along the lines of least resistance, and that the boy who learns, while he is gaining his school education, how to carry forward the operation of the farm and the ranch will have much better hope for success in the active years of his life. Mr. Crowley is a strong advocate of cultivating the power of concentration in everything one undertakes, and keeping the mind open for information and encouragement, whatsoever may be the source from which it may be presented. He believes that no lawyer can afford, on account of its effect upon himself, to engage on the wrong side of a case, and in all such instances it is the duty of the legal counsellor to advise settlement out of court. As to the live-stock business, he believes there are practically no limits to its growth in Texas, and the man who keeps abreast of the improvements in the great industry is the one who will reap the reward.

"The Texas Cattle Raisers' Association," said he, "has for more than a quarter of a century been performing a work of the highest importance to cattle-raisers of the Southwest, and has always been faithful to its trust. It requires a steady, conservative power of resistance, to hold the association within the line where it can be most useful to the industry and not expand into unnatural fields. As far as controlling the marketing of cattle is concerned, nature does that, and no combination of men can successfully interfere with the laws of nature. Cattle will be sent forward to market when they are fully matured; and as the early grass of the warm Gulf Coast appears a month or six weeks before the spring grass of Northern Texas, and the growth each spring gradually appears northward as far as the British line, the early beef will each year start from Southern Texas. The bulk of Southwestern cattle will eventually be attracted to Fort Worth, where great packing-houses will prepare their products for distribution from Galveston to the most distant countries of the globe. The live-stock business of Texas at the present time is merely an infant compared with the full-fledged industry which is destined from this prolific region to supply food to millions of people of every land under the sun."

The American Buffalo and Its Relatives.

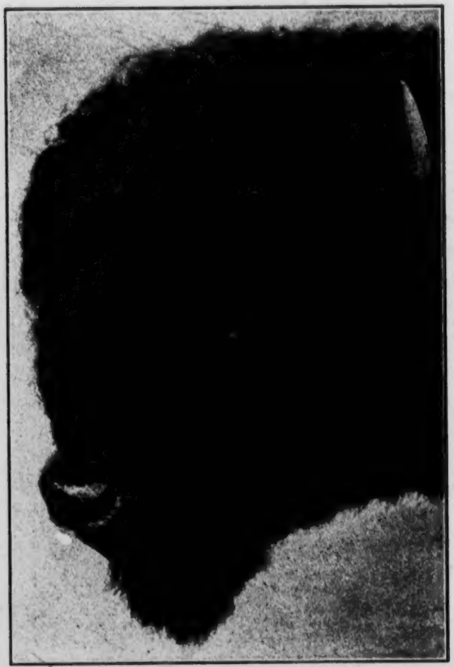
The New World's Greatest Ruminant.—Magnitude of Its Number.—Its Distant Relative, the Musk-Ox.—The Bison Family and Its Characteristics.—The European Bison.—Asiatic Relatives of the Bisons.—Majestic Aspect of the American Buffalo.—Its Special Characteristics.—The Buffalo as a Warrior.—The Breeding Season.—Change of Coat.—Great Area Occupied by the Buffalos.—Their Range in the Eastern Part of the United States.—Vast Territory Occupied by Them in the West.—But One Kind of American Buffalo.—Evolutionary Line of the Bison Family.—Early Encounters of the Spaniards with the Buffalos.—Old Spanish Stories of Buffalos and Dogs Domesticated by Indians.—Capricious Shiftings by the Buffalos.—Early English Accounts of Buffalos in the East.—The Buffalos Between the Alleghanies and the Mississippi River.—Geographical Distribution of the Buffalos West of the Mississippi. River—Buffalo Migrations.—Disposition of the Buffalo to Stampede.—Spectacles That Never Will Be Seen Again.

All of the five hollow-horned ruminating animals indigenous to the western continent—the bison, the musk-ox, the Rocky Mountain sheep, the Rocky Mountain goat, and the pronged-horn antelope—were confined to North America; and of these the bison was much the larger, the most important, and by far the most numerous. While "bison" is the proper family name of this animal, it has been so long called a "buffalo" by the American people that it would not be worth while now to object to the change. The true buffalo, found only in the Old World, has no hump on its shoulders, and is structurally different in several other respects, while the American bison attained the highest development of "humpiness" among all bovines.

In physical character, and in the number and magnitude of the herds in which it formerly existed in the United States, our buffalo, as we shall call it hereinafter, certainly was the most remarkable animal that civilized man ever has known; and surely no large wild mammal has been, within the historical period, so numerous in any country as were the members of this race in the immense valley of the Mississippi when white men first traversed that great empire of forests and plains. Its rather distant relative, the musk-ox, which, among the other four of the native hollow-horned ruminants, is the nearer to it in size and general characteristics, has been comparatively of almost insignificant number, with a range confined to Arctic parts of the country.

The musk-ox possesses no great interest for us here. It inhabits North America north of the sixtieth parallel of latitude, or thereabouts; but how it manages to pick up a living from the scant vegetation of that country has been a puzzle to every one who has visited its dreary ranges. Still, it appears to be contented, and during most of the year is in good condition as to flesh and fat. As the generic part of its name (*Ovibos moschatus*) imports, it seems to form a connecting link between sheep and the cattle family; the specific distinction expressed in its name being due to the musky effluvium it exhales. In size it is about midway between a sheep and an ordinary cow, the full-grown male being five and one-half feet in length from the nose to the root of the tail and weighing around 700 pounds—or something like twice as much as the reindeer. The head is rather large, and surmounted by broad flattened horns in both sexes; the horns of the male meeting at their bases so as to cover entirely the crown of the head, from which they bend down by the cheeks and then turn outward and upward, much as in the gnu. The horns are of a dull white, and rough on the basal half, but smooth and shining beyond, and black at the tips; those of the older males measuring in spread as much as two and one-half feet from tip to tip. The ears are not visible, the legs are short and the hoofs broad, while the short tail is concealed by the hair. In hairiness the musk-ox, in proportion to size, is even more extravagant than the buffalo. Beside being thick-set all over the body, the hair on the sides and the under-parts of the animal is so long that it almost reaches the ground, thus making the creature look more like a large sheep or a large goat than an ox. The color is a brownish-black, more or less grizzled.

Though its legs are short, the musk-ox runs very fast and climbs rocky hills with a facility comparable to that of the sheep or of the goat. It is seen usually in herds of from twenty to thirty individuals, and is exceedingly difficult to approach. The rutting season occurs late in August and early in September, the young being born toward the first of June. The males are very pugnacious at the breeding-time, although they are irascible the year 'round, and when wounded often are dangerous. The flesh of a fat young animal is well tasted, but when it is lean the musky odor is strong, as it is in the old individuals at all times. Only one living species is known, and its geographical distribution has not been precisely determined. However, its number rapidly is being reduced, and the creature's extinction probably is not far away. Its fossil remains occur freely in the Quaternary deposits in the United States and also in those of England, France, and Germany, and in those of Siberia and of other parts of Asia, in company with remains of the mammoth and other beasts that long since disappeared. Just before the drift period, the musk-ox, or animals almost identical with it, ranged over the valley of the Mississippi as far south as Arkansas in large number, but the character of the existing species is such as to unfit the animal for dwelling anywhere within the temperate zone.

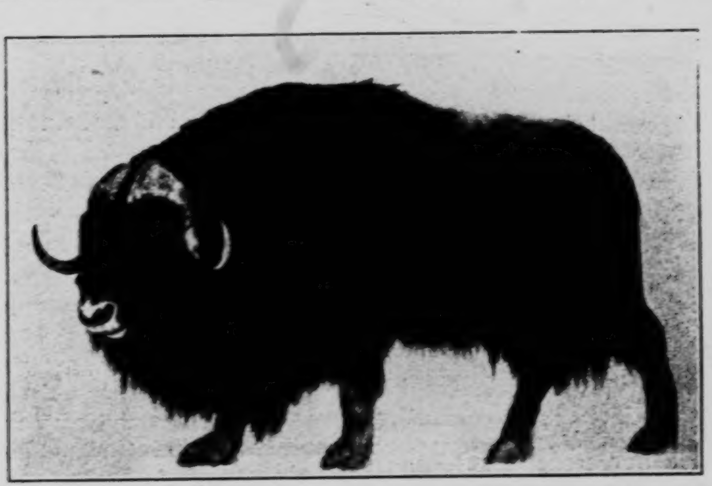


Head of the American Buffalo.
(From a photograph of a mounted specimen.)

But the musk-ox is much nearer to our straight-backed cattle than to our humped monarch among the native ruminants of America. The bison family is a small one, our buffalo having but one close relative in the whole world. Within the historical period man has known but two species of this genus: the American (*Bison americanus*), and the European, or Eurasian, bison (*Bison bonasus*), or aurochs, which has been mentioned in an earlier section of this series of stories. Both South America and Africa are destitute of representatives of this family of animals. Formerly the Ghaur of southern and southeastern Asia was classed as a bison, and still is by some naturalists, but by a greater number now is assigned either to the genus *Bos* to which our cattle belong, or to the intermediate one of *Bibos*.

Existing bisons are characterized by having fourteen pairs of ribs instead of the thirteen of the ox-tribe, by relatively large heads, short horns, withers so much higher than the hindquarters that the animals are "hump-backed," and by heavy growths of hair; the latter being especially characteristic of the American buffalo, in which it is curly and very thick, and upon the head, neck, and shoulders very long. Each of the two species is so nearly related to cattle, proper, that it will inter-breed with them.

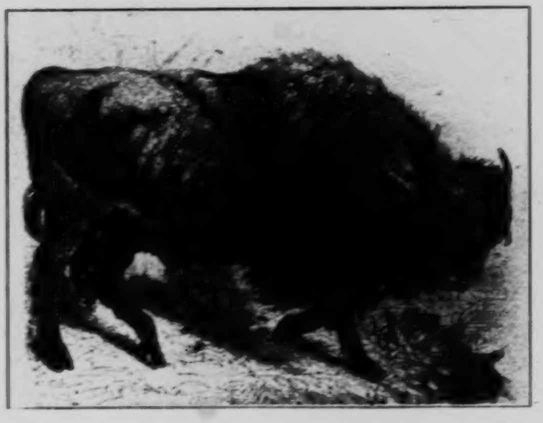
The aurochs—German "*auerochs*," meaning "wild ox"—is, exclusive of the hump, considerably larger in body than its American brother, and is the largest of existing European quadrupeds. The well-matured bull aurochs stands over six feet high, and measures above ten feet from the nose to the root of the tail. It has the general form of the bison type, but compared with our buffalo its body is more compressed—more lanky, the hump is much smaller, the horns longer, and the hair on the fore-parts and on the neck and the head is less shaggy. Its coloration is about the same as that of the American species, the hair being brownish, but much darker on the fore-parts than in the woolly growths that cover the sides and flanks. The horns are about eighteen inches long, tapering, spreading, and a little curved inward near the tips, and the tail is long and heavily tufted.



The Musk Ox.
(From Whitney's "Musk Ox, Sheep and Goat.")

These animals once were widely distributed over continental Europe and trans-Caucasia, avoiding the Russian steppes; and were present in large numbers in central and southern Europe during the period of the Roman Empire. Cæsar mentions it as abounding in his time, together with the great ox, urus, in the forests of Germany and of Belgium; and it appears occasionally to have been captured there by Romans, afterward to be exhibited alive in the amphitheaters of their capital city. From about the time of the downfall of the Roman Empire the number of the aurochs in Europe began to diminish, and the decline continued steadily through the succeeding centuries. The animals now are almost extinct, practically as nearly so as is the American species. They would long ago have disappeared from the face of the earth were it not that several bands of them, numbering, it is said, about 700 head at present, have been guarded and protected in the Imperial Forest preserves at Bialowicza in Lithuania, under the patronage of the czar. A few hundred more have been reported to be roaming in the fastnesses of the Caucasus, but as little is definitely known about these it is more than probable that they are a very doubtful quantity. However, the extinction of these remnants of the once great race obviously is not far distant in the future, as all modern attempts to domesticate the creatures have resulted in complete failure.

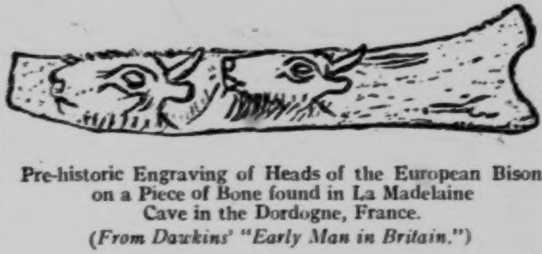
Many naturalists believe that the aurochs never has been really domesticated. It is easily provoked to anger, and becomes dangerous by the swiftness of its movements and the overpowering force of its weight in a charge. Its cry is peculiar, "resembling a groan or grunt more than the lowing of an ox." Full stature is attained at about six years, and the animals of the Lithuania herds live for thirty or forty years. They are said to exhibit some aversion to association with domesticated cattle, and to retain their ancestral wildness and shyness with great tenacity. The several experimental crossings that have been made between them and tame cattle resulted in nothing important.



The European Bison, or Aurochs.
(From Wood's "Illustrated Natural History.")

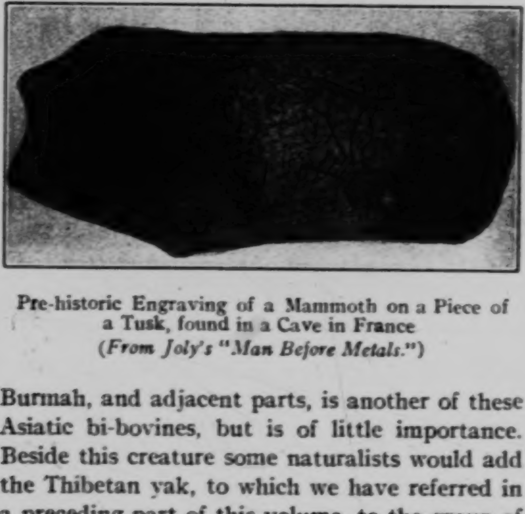
Fossil remains of bisons are abundant in the Quaternary (Pleistocene) deposits in England and in continental Europe; two species being recognized among them. The more ancient of these was of gigantic size, with horns that must have spread ten or twelve feet—from three to four times that of either of the existing species. The other was less giant-like, but also had very long horns, and was widely distributed in Europe. These bisons flourished in company with the ancient European rhinoceros and the huge elephantine hairy monster, the mammoth. They were hunted by the European wild men in the period when the great glaciers slowly were melting away, and these men have left us records of their own making of an intimate knowledge of the aurochs as well as of the mammoth and rhinoceros. Fossil remains of a third species, or at least a variety, of bison have been found in Quaternary deposits of Escholtz Bay, Alaska. This and the later European species may have been local races descended from a common type, and are regarded by some naturalists as the direct ancestors of the American buffalo and the European aurochs, respectively.

Our buffalo's Asiatic cousin, the wild ghaur, or ghour (from the Sanskrit "*ghaura*," meaning white), that has been enthusiastically hunted by sportsmen, formerly was classed as a bison, and commonly called the "Indian bison," or the "Bengal bison." As heretofore mentioned, it is not now regarded as a true bison by most naturalists, more definite knowledge of it having led to its classification as an animal intermediate between cattle and bisons. The ghaur probably is the largest existing species of truly wild cattle, many of the bulls standing above six feet high at the withers, with huge bodies, the shoulders having some of the bison humpiness; the cow is in every way smaller The animals really are massively built, and have regularly upward-curving yellowish horns, decidedly flattened at the base, and that in known instances have measured thirty-nine inches around the outer curve, with a basal circumference of nineteen inches; but the average size is less than this. The ears are very large, the dewlap inconspicuous, and the tail comparatively short. In color the mature bulls are dark brown, sometimes nearly black, with the crown of the head and the muzzle nearly gray, and the lower parts of the legs whitish. The hair is fine and glossy, but not long, excepting upon the hump, and in some seasons of the year it is so short and thin upon the hindquarters that these parts appear almost naked. This fine animal is to be found in small bands throughout all of the forested districts of India (except Ceylon) to the foot-hills of the Himalayas and through the hilly districts of Assam and Burmah down to the Malay Peninsula, where there are two forms, one called "sladong" and the other "sapio." The ghaur roams widely, but keeps to the jungle, and is so alert and cunning in escape, and so formidable when brought to bay, that its chase is justly regarded as among the great sports with a rifle, as well as among the very dangerous, as the animals must always be pursued on foot. A mature and experienced bull makes an even match for the tiger himself. Nevertheless, the ghaur is not pugnacious, and rarely, if ever, attacks human beings except when wounded or cornered without chance for escape; but shyly retreats from man whenever possible. These cattle have not been domesticated, except partially by a few semi-wild hill tribes east of the Ganges, who keep them for food in company with their gayals.


Pre-historic Engraving of Heads of the European Bison on a Piece of Bone found in La Madelaine Cave in the Dordogne, France.
(*From Dawkins' "Early Man in Britain."*)

The gayal (probably from the Sanskrit "*gaya*," meaning household) is a species of bovine closely related to the ghaurs, but less bison-like—nearer to true cattle, which has long been more or less domesticated among the hill tribes of northeastern India, and thence eastward through Assam to the Chinese borders, where it is known as the "mithan." It was formerly considered a race of the ghaur, but now is classed as a distinct species. It resembles the ghaur, but is of smaller size, has proportionately smaller legs, and its blackish horns are shorter and less compressed at the base. The head is very broad and flat at the upper part, suddenly contracted toward the nose, with a very wide space between the horns. The prevailing color is brown, generally dark, but in some of the herds parti-colored and white animals are seen frequently; the legs of all being white. Their milk is extremely rich, but not abundant; the natives, however, do not use the milk, but rear these cattle entirely for their flesh and skins. As those in captivity are only semi-domesticated, they are never used in agricultural labor nor as beasts of burden; and though occasionally inter-bred with captive ghaurs, have given rise to no domestic race. Beyond the fact that it is, like the ghaur, an inhabitant of the forests, and is surprisingly agile among rocky hills, nothing is known of the habits of the gayal in the wild state.

The banteng, a small wild ox found in Java, Burmah, and adjacent parts, is another of these Asiatic bi-bovines, but is of little importance. Beside this creature some naturalists would add the Thibetan yak, to which we have referred in a preceding part of this volume, to the group of existing animals that stand between cattle, proper, and the bisons.



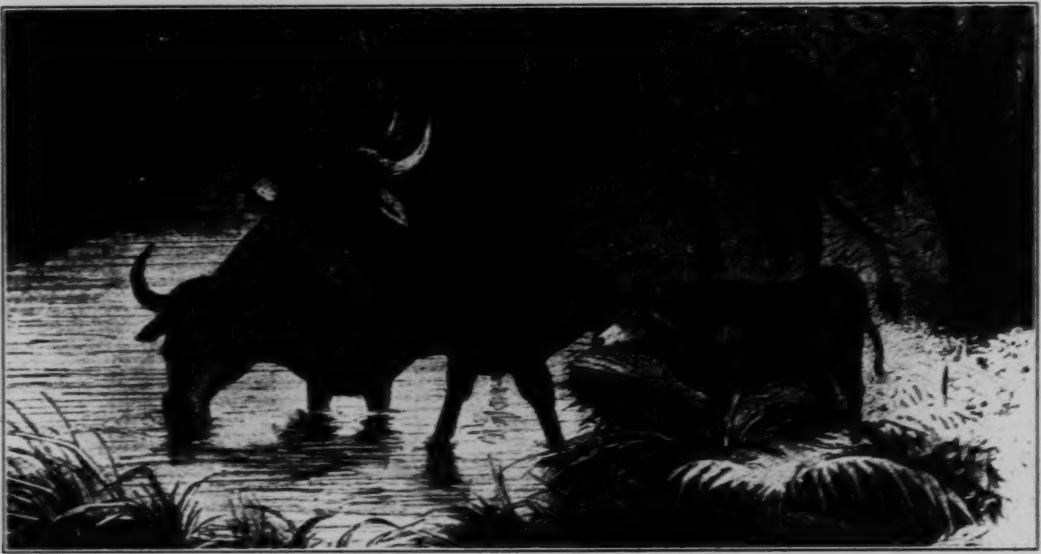
Pre-historic Engraving of a Mammoth on a Piece of a Tusk, found in a Cave in France
(From Joly's "Man Before Metals.")

But neither the aurochs nor any of these related animals equal the American buffalo in barbaric majesty and nobility of presence, for in this respect the latter, in its wild state, was "of form and aspect too magnificent to be destroyed," and beyond comparison with any other ruminant, as well as being the most picturesque of all of our native creatures. The aurochs is taller and has heavier and stronger hindquarters, but its body as a whole is less rotund than that of a full-grown buffalo in good condition. This is due partly to actual physical differences in the body proper, as in its proportionately smaller chest and hump, and partly to the thinner growths of hair. Were the aurochs developed in its forward parts, and its head, neck, and forequarters clothed with hair, to the buffalo's amplitude, it would be without a rival among ruminating animals. The ghaur bull, also, is larger in bulk, but in general appearance is not nearly so striking and impressive as a buffalo bull.

At the present time the American buffalo is reduced so nearly to the point of complete extermination that, as a truly wild animal free to go where its instincts might lead it, it is already extinguished in the United States. Therefore, for our further purposes here, it is not inappropriate to refer to the species in the past tense.

These animals were distinguished by their large chests and by the very large hump upon the shoulders that was of an oblong form, diminishing in height as it receded along the spinal course, thus giving a marked obliquity to the line of the back, and also emphasizing the relative lightness and slenderness of the hindquarters. The massive head, neck and forequarters were covered with long and thick growths of shaggy hair of a dark shade, but which often was tinged with a yellowish or rust color, while the back parts of the body had a very dense growth of fine short curly hair that usually was of a uniform dun color. This outfit of hairy covering was embellished by a great beard beneath the chin. The eyes were black and brilliant, and the large head carried a pair of short black horns that were very thick near their bases, whence they curved upward and outward, tapering rapidly to the tips. The outline of the face was convexly curved, and the upper lip on each side, being papillous within, dilated and extended downward, giving a very oblique appearance to the lateral gap of the mouth; resembling in this particular the ancient low-relief architectural ornamentations representing the heads of oxen. The legs were longer than those of respectably bred domestic cattle, and the outer equipment was completed by a short tail with a large tuft of dark hair at the end. It has been said in recent times that a white buffalo occasionally appeared in the great hosts and that gray ones were not uncommon. But it has been denied by many observers that these were true buffaloes, such animals being said to have been the offspring of a buffalo cross with runaway Spanish cattle.

The bulls were conspicuously larger than the cows and in length were about the same as our ox. Their height, if the medium between hump and rump were taken, also was about that of the ox. But the great hump, with its masses of long hair, deceived the eyes of most observers by its magnifying effect upon the shoulder-height at the expense of that of the rump; and this also caused the animals to appear a little shorter than really they were. Notwithstanding the apparent clumsiness of both bulls and cows, they could get over the ground in their lumbering gallop with surprising speed and go long distances.



The Ghaur, or Indian Bison.
(From Rousselet's "India and Its Native Princes.")

The largest buffalo ever measured by a naturalist was the old bull which was shot in Montana in December, 1886, by Mr. William T. Hornaday, then Superintendent of the National Zoological Park at Washington. This animal now figures in a mounted group of buffalos in the United States National Museum at Washington, and a very good picture of him adorns one of the present-time ten-dollar bills of our national currency. His dimensions in the flesh were as follows:

	Feet.	Inches.
Height at shoulders, to the skin........	5	8
Height at shoulders, to top of hair......	6	..
Length of head and body, to root of tail..	10	2
Depth of chest	3	10
Depth of flank	2	..
Girth, behind fore legs.................	8	4
From base of horns around end of nose..	3	6
Circumference of muzzle, behind nostrils,	2	2
Length of tail vertebræ................	1	3
Length of hair on shoulders............	..	6½
Length of hair on forehead......... ...	1	4
Length of chin beard...................	..	11½
Estimated weight......................	2,100 pounds.	
Age of animal..........................	11 years.	

Measurements of an adult cow, eight years old, taken in Montana by the Hornaday expedition, in November, 1886, were as follows:

	Feet.	Inches.
Height at shoulders....	4	10
Length, head and body to root of tail...	8	6
Depth of chest	3	7
Depth of flank	1	7
Girth behind fore legs................	6	10
From base of horns around end of nose..	3	5
Length of tail vertebræ................	1	..

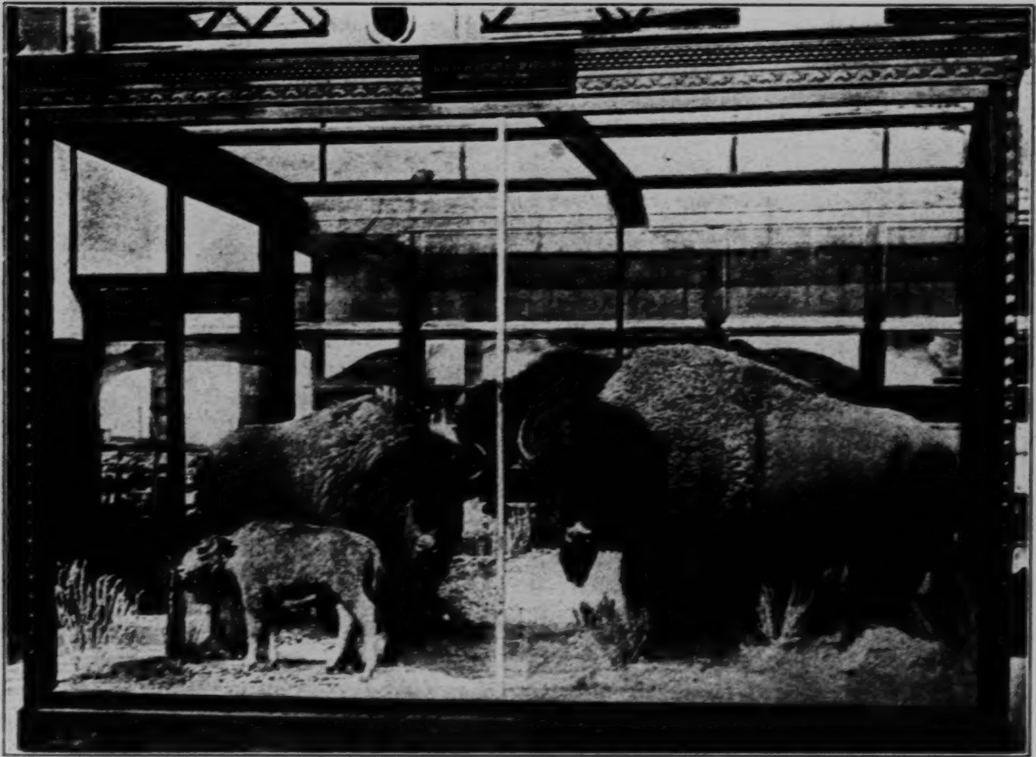
The shoulder-height of buffalos of various ages and both sexes as taken by Mr. Hornaday in Montana at that time were:

	Feet.	Inches.
Male calf, four months old	2	8
Male, one year old	3	5
Male, two years old	4	2
Male, five years old (average size)	5	6
Female, three years old	4	5
Female, eight years old	4	10

In its general aspect the buffalo, the bull especially, seemed to be menacing and ferocious, but to a great extent this was theatrical, mere outward show, since of the two species of the bison family ours was by far the more pacific in disposition, and more also than its cousin, the ghaur, as we see in most buffalos which have become semi-domesticated in captivity in recent years. But among these captives there is occasionally a bull who refuses to be reconciled to his situation, and develops an ugly and combative temper. During the breeding season combats between bulls for lordship in the community were frequent and strenuous and sometimes bloody, but fatalities were not common in these encounters, and such deaths as occurred usually were as often due to accidental as to intentional injuries; and no bull would hesitate to turn tail as soon as he realized that he was about to get the worst of the fight. At times when the fighting spirit was at a high pitch and the creatures were in a reckless state of mind that induced them to go about hunting for trouble, some bulls were known to have attacked men; but this did not happen very often, was due to exceptional belligerency in a few individuals, and was not characteristic of the species, for usually the buffalo would run from man. All herbivorous animals when alarmed seek safety either by flight or in concealment, and the buffalos were as quick as any of the others to take to their heels upon the appearance of danger. To get within effective distance hunters had to approach them cautiously up the wind, and when a herd discovered the presence of these worst of all enemies, not even the most valiant of the warriors among the bulls remained behind to offer battle to the advancing foe. But when wounded and brought to bay often they would fight furiously, and make the situation one of great peril for the hunter and his horse.

The buffalo breeding season began early in July and continued until toward the close of September. The young cow did not breed until she was three years old. The calves usually were born in April, May, and June, but sometimes, though not often, as late as the middle of August. As a rule there was but one calf at a birth; twins coming only occasionally. Unlike the young of nearly all other bovines, the buffalo calf came into the world clad in a coat of entirely different color from that which it took on a few months later and wore during the remainder of its life. At birth the hair was of a brick red color or of a cinnamon all over the body, and tinged with a shade of yellow, this coat being shed in the autumn, except in the very late-born calves, and succeeded by one that was of the regulation colors. Usually the calves stayed with their mothers until they were a year old, and not infrequently they loitered around them until they were two, the cows having increased their families in the meantime. In the buffalo cow maternal affection appears to have been to a considerable extent a matter of circumstances. At some times she would be almost as ready and willing to do her utmost in protecting her calf as ever a she-bear was in defending her cubs, but at other times, especially when in a panic-stricken state of mind, the mothers might abandon their offspring without the least hesitation. Taking one time with another, the bulls were more to be depended upon by the calves for protection than were the mother-cows.

The buffalos shed their hair in the spring, and early in the summer they were so nearly naked that the flies tormented them to desperation. The new coat became of good length and color by the middle of autumn and at the beginning of winter was at its best, continuing in this condition until toward the end of January; the animals being uncommonly well-clad for the rigors of winter. Their heads, necks, and forequarters were so heavily protected that the buffalos did not turn tail to blizzard-storms and drift before them, as range cattle do, but faced them, and often moved against them; but usually they would seek shelter from them in some narrow valley or system of ravines. In February the hair began to loosen, and in March and April the animals presented the forlorn appearance of the conventional "tramp," as their weather-beaten coats, fluttering in rags, were being discarded. After losing their old coats, and while their hides practically were bare, they wallowed in mud-holes like pigs to plaster themselves against the attacks of the swarms of blood-thirsty insects, and when in this dilapidated and mud-smeared condition the majesty of their appearance disappeared and waited for better times. But with their new, sleek, and bright-colored coats it made up for all that it had lost during the rag-tag and mud-wallowing season.



Mounted Group of American Buffalos in the United States National Museum at Washington.
(From a photograph.)

Less than one hundred and fifty years ago the buffalos were roaming over one-third, if not more, of the entire area of North America—counting all that lies between the Isthmus of Panama and the Arctic Ocean—and, as we have said, their total number far exceeded that of any other large mammal known within historical times. While the center of their abundance was in the broad region lying between the Mississippi River and the Rocky Mountains, they were found to the eastward of that river as far as central New York, and, according to some writers, but which now appears to be very doubtful, from there northward into Canada, to the country of the Ottawa River. They were in western Pennsylvania, western Maryland, Virginia, and thence southward in various parts of the Atlantic coast-plain through North Carolina and South Carolina and in about one-half of Georgia. They seem to have been absent from Alabama, excepting, perhaps, its extreme northern border, and until early in that century (the eighteenth) had ranged over almost the entire State of Mississippi, some being found as far south as its gulf coast. In that part of Louisiana east of the Mississippi they had existed in large number up to the second decade of the eighteenth century, occupying even the delta of the river. Between the Alleghanies and the Mississippi they were numerous over the areas of Tennessee, Kentucky, Ohio, Indiana, and Illinois. The chief city of western New York bears the popular name of these animals; and the State of Indiana still preserves a memory of their one-time occupation of its domain in its Great Seal, upon which is shown a buffalo fleeing from the presence of a pioneer, who is engaged in cutting down a tree. In Wisconsin the buffalos appear to have limited their range in a general way to the western half of that State's area.

West of the lower Mississippi the animals were present in moderate number in Louisiana, but abounded in the whole of the Texas country down to salt water. From Texas some ranged over into Mexico, and sojourned on the Mexican side of the valley of the Rio Grande. But there never was a great number in that country, and it is probable that none ranged southward from the general course of that stream more than one hundred and fifty miles or so at any time; and they were unknown in every other part of Mexico. The animals over-ran the eastern half of New Mexico, and there were some in its western parts as well as a few in Arizona, although several writers exclude them from the last-named Territory. Farther north, the limits of their range west of the Continental Divide, would be fairly well defined by a line drawn from the northwestern corner of New Mexico northward through Utah, but near to the Colorado boundary, about to the Grand River, thence northwest through Utah to the northeastern section of Nevada. The line should leave Nevada about midway of its northern boundary and run northward through the far-eastern part of Oregon, bending to the northeastern corner of that State; thence northerly by east through the western border of Idaho to the Canadian Dominion. In the Dominion this westward buffalo boundary would run on northward to about sixty-two degrees of latitude, where it would curve to the east north of the Great Slave Lake and bend around to the southeast, crossing the eastward extension of that lake, and then course southeast to Lake Winnipeg, the shores of which it would skirt to that lake's southern extremity, and thence continue on in the same direction to the boundary line.

In the immense empire bounded on the east by the Mississippi River and to the westward of that river by the winding border that has been roughly defined above, the buffalos existed in unknown millions. They were found in the mountain "parks" at elevations as high as 11,000 feet, and their range over prairies and plains, from its extreme southing in northern Mexico, to its limits in the north in the southern outskirts of the bleak and barren land of the musk-ox, covered a distance of about 3,500 miles.

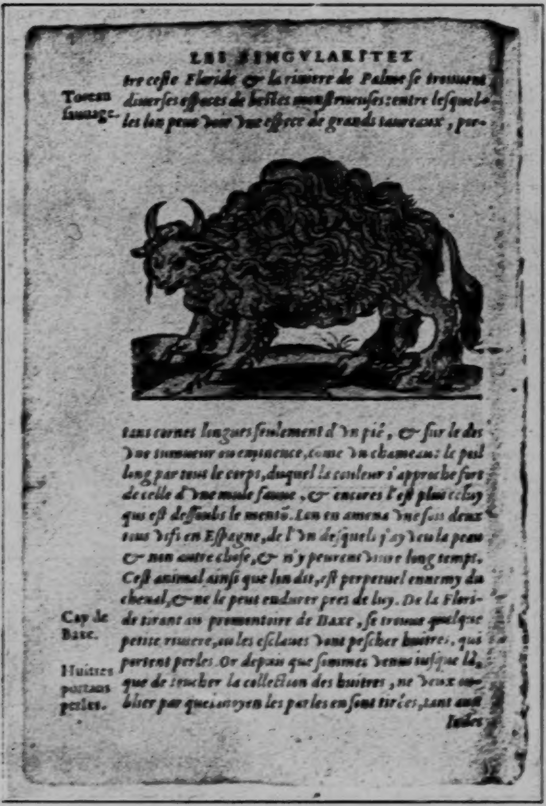
The extreme east-and-west limits of buffalo-land in the United States, excluding whatever may have been its projection into Arizona, extended over about forty-one degrees of longitude; that is to say, from about seventy-seven degrees to about one hundred and eighteen, west, or something like 2,800 miles.

Attempts have been made to recognize two varieties, if not species, of the American buffalo—that of the plains and that of the forested and mountainous parts of the country, but these rested chiefly upon the notions and offhand opinions of hunters and of frontiersmen. The variations observable were minor and due entirely to changed habits that conformed to the different environment, and not to any difference in structure; the plains animals having been identical in every structural respect with those of other parts of the country.

Much speculation has been indulged in concerning the evolutionary history of the bison, but thus far without any satisfactory results. The fossil bisons, to which we have referred heretofore, no doubt had come down from bison-like animals of the Tertiary period. Some writers would connect these with the earlier "brontops robustus," a huge herbivorous mammal of Miocene times, that abounded in that part of North America now represented by the Rocky Mountain region, and roamed the ancient country in large herds. However, this assumed connection rests upon no more evidence than some resemblance in frame-work.

The first Europeans who saw an American buffalo were Cortes and his men after they had taken the Aztec capital. When out sight-seeing in 1521 they visited the menagerie, or "zoölogical garden," that Montezuma maintained for the edification of his people, and of which the historian, De Solis, wrote as follows:

"In the second Square of the same House were the Wild Beasts, which were either presents to Montezuma, or taken by his Hunters, in strong Cages of Timber, rang'd in good Order, and under Cover: Lions, Tygers, Bears, and all others of the savage Kind which New Spain produced; among which the greatest Rarity was the Mexican Bull; a wonderful composition of divers Animals. It has crooked Shoulders, with a bunch on its Back like a Camel; its Flanks dry, its Tail large, and its Neck cover'd with Hair like a Lion. It is cloven-footed, its Head armed like that of a Bull, which it resembles in Fierceness, with no less Strength and Agility."



LES SINGVLARITEZ

Toreau ſauuage.

tre ceſte Floride & la riuiere de Palme ſe trouuent
diuerſes eſpeces de beſtes monſtrueuſes: entre leſquel-
les lon peut voir vne eſpece de grands taureaux, por-
tans cornes longues ſeulement d'vn pié, & ſur le dos
vne tumeur ou eminence, come vn chameau: le poil
long par tout le corps, duquel la couleur s'approche fort
de celle d'vne mule fauue, & encores l'eſt plus celuy
qui eſt deſſoubs le mentō. Lon en amena vne fois deux
tous vifs en Eſpagne, de l'vn deſquels j'ay veu la peau
& non autre choſe, & n'y peurent viure long temps.
Ceſt animal ainſi que lon dit, eſt perpetuel ennemy du
cheual, & ne le peut endurer pres de luy. De la Flori-
de tirant au promontoire de Baxe, ſe trouue quelque
petite riuiere, ou les eſclaues vont peſcher huitres, qui
portent perles. Or depuis que ſommes venus iuſque là,
que de toucher la collection des huitres, ne veux ou-
blier par quel moyen les perles en ſont tirées, tant aux
Indes

Cap de Baxe.

Huitres portans perles.

Oldest known Picture of an American Buffalo.
(From Thevet's "Les Singularitez de la France Antarctique," Antwerp, 1558.)

There is no doubt that this animal was a buffalo. The nearest locality from which it could have come was upon the borders of the Rio Grande Valley some 500 miles away to the north where it probably had been procured when young, and taken to the Aztec capital as a great curiosity among animals.

The first Europeans who saw the buffalos on their native heath were Alvar Nuñez Cabeza de Vaca—or, as Mr. W. T. Hornaday says, "in other words, 'Cattle Cabeza,' the prototype of our own distinguished 'Buffalo Bill' "—and his three companions: Dorantez, Maldonado, and a north-African negro named Estevanica (Stephen). As mentioned in an earlier part of this volume, these men were the sole survivors of the most disastrous expedition of Pamphilo de Narvaez into "Florida" in 1528, and were wrecked upon the gulf coast of Texas in 1530, where they were made slave-prisoners by the Indians; later escaping, and finally making their way out of Texas, through New Mexico, and thence to Spanish settlements on the Pacific coast of Old Mexico, in 1535-36. It is probable that only a few buffalos were seen by them in the Southwest, and according to his reference to them they did not excite much wonder in the mind of Cabeza de Vaca. His "Relacion" of his voyages and journeys, written after his return to Spain, is a story of daring, adventure, suffering, and other vicissitudes that reads more like a tale from the "Arabian Nights" than a record of actual experiences. From a translation of it made in 1851 by Buckingham Smith, then Secretary of the American Legation at Madrid, we have De Vaca's account of the buffalo, as follows:

"Cattle came as far as this. I have seen them three times, and eaten of their meat. I think they are about the size of those in Spain. They have small horns like the cows of Morocco, and the hair long and flocky, like that of the merino [sheep]. Some are light-brown, others black. To my judgment the flesh is finer and sweeter than that of this country [Spain]. The Indians make blankets of those that are not full grown, and of the larger they make shoes and bucklers. They come as far as the sea-coast of Florida [Texas is a part of old Spanish "Florida"], and in a direction from the north, and range over a district of more than 400 leagues. In the whole extent of plain over which they run, the people that inhabit near them descend and live on them, and scatter a vast many of skins throughout the country."

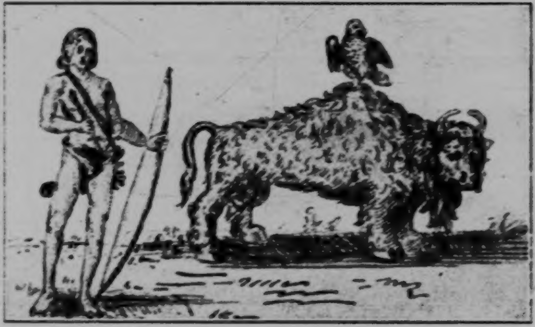
The Friar Marcos de Niza, the next of the Spanish explorers of New Mexico, who came from Old Mexico in 1539, was much surprised, after he had entered the pueblo country, by the great number of dressed "oxe-hides" (buffalo-hides) that he saw in use among the native people, though he does not appear to have seen any of the living animals. At one of his stopping-places he saw an uncommonly large hide, and of this and of the creature from which it was said to have been taken, the earliest English translation of Marcos' "Relacion" of his experiences and adventures (incorporated into Richard Hakluyt's "Voyages," 1598–1600), makes the Friar say:

"Here they shewed me an hide halfe as bigge againe as the hide of a great oxe, and tolde me that it was the skin of a beaste which had but one horne upon his forehead, and that this horne bendeth toward his breast, and that out of the same goeth a point right forward, wherein he hath so great strength, that it will breake any thing how strong so ever it be, if he runne against it, and that there are great store of these beastes in that Countrey. The colour of the hide is of the colour of a great Goat-skin, and the hair is a finger thicke."

Marcos, of whose expedition some further particulars appear in a later section of this work, traveled north to thirty-eight degrees of latitude, and within sight of one of the seven pueblo towns of the Zuni country, to which region the Spaniards had given the name "Cibola"; that is, the "Buffalo Country." To this day the Zuni group consists of seven different pueblo tribes, and their homes constitute the Seven Cities of Cibola, which the Spaniards of these old times were led to believe were magazines of gold, silver, and other treasures. When Marcos, who turned out to be a most extravagant braggart-romancer, returned to Mexico, he exaggerated and otherwise misrepresented everything that he had seen and heard while in the pueblo country. His absurd accounts of the country and its people, and his tales of the fabulous wealth they possessed—or that he had heard they had—hastened the preparations for Coronado's long and fruitless expedition into that land of promise, that set out the next year from Mexico. In a report to Viceroy Mendoza, written in the summer of 1540 from the dreary "valley of the Caracones," the sorely disappointed Coronado thus paid his respects to the untruthful Marcos:

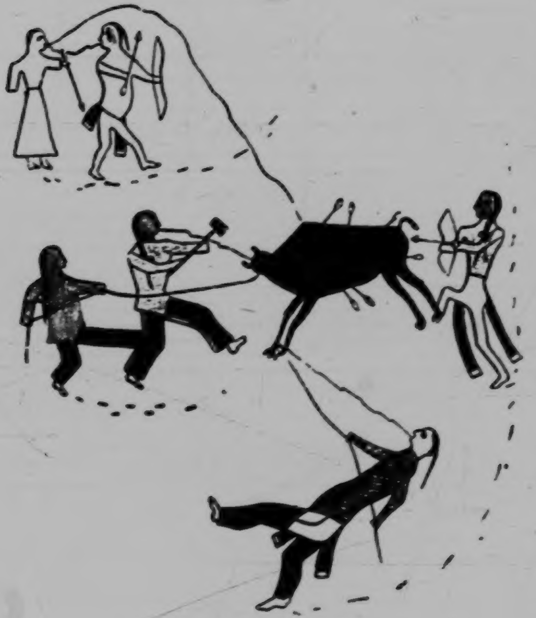
"It grieved the whole company that a thing [the country] so highly commended, and whereof the father had made so great bragges, should be found so contrary, and it made them suspect that all the rest would fall out in like sort."

As some further particulars of Coronado's memorable expedition fall into place in still another part of this volume, we shall here refer only to some of the circumstances and certain of the incidents of his exploration of the plains region northeastward from New Mexico. He and his men remained in New Mexico, engaged in exploring various sections of that country, until the spring of 1541, their headquarters during the intervening winter having been at Tiguex on the Rio Grande. In the spring of 1541, Coronado, leaving a part of his men at Tiguex, set out with the others northeast across the plains in search of the opulent mythical city of Quivira, which was their last hope for finding the looked-for stores of gold, silver and precious stones. Hakluyt's "Voyages" includes a translation from Francis Lopez de Gomara's "Historia de las Indias," in which an account of this long journey over the plains toward the Missouri River is given. In this we have some of the impressions made upon the minds of the explorers by the



An Old (probably the oldest) Spanish Picture of a Buffalo. (*From "Hispanæ Novæ," 1595.*)

character of the region they traversed in their misguided and disappointing march to "Quivira," together with a description of the buffalo—of which "the number was incredible," of some other remarkable animals, and also of certain of the habits of the people, in forms of expression that are amusingly quaint:



Indians Killing a Buffalo.
(From a modern Indian drawing in Dellenbaugh's "North Americans of Yesterday."

"From Tiguex they went in foure dayes journey to Cicuic [Cicuye, the modern Pecos], which is a small towne, and foure leagues from thence they met with a new kind of oxen wild and fierce, whereof the first day they killed fourescore, which sufficed the armie with flesh. From Cicuic they went to Quivira, which after their accompt, is almost three hundred leagues distant, through mighty plaines, and sandie heathes so smooth, and wearisome, and bare of wood, that they made heapes of oxe-dung for want of stones and trees, that they might not lose themselves at their returne: for three horses were lost on that plaine, and one Spaniard, which went from his companie on hunting. All that way and plaines are as full of crookebacked oxen, as the mountaine Serena in Spaine is of sheepe: but there is no people but such as keepe those cattell. They were a great succour for the hunger and want of bread which our people stood in. One day it rayned in that plaine a great showre of haile, as bigge as Orenges, which caused many teares, weaknesse, and vowes. At length they came to Quivira and found Tatarrax, whom they sought, an hoarie headed man, naked, and with a jewel of copper hanging at his necke, which was all his riches. The Spaniards seeing the false report of so famous riches, returned to Tiguex, without seeing either crosse or shew of Christianitie: and from thence to Mexico. In the ende of March of the yeere 1542, Francis Vasquez [Coronado] fell from his horse in Tiguex, and with the fall fell out of his wits, and became madde. Which some took to bee for griefe, and others thought it to bee but counterfeited: for they were much offended with him, because hee peopled not the countrey.

"Quivira is in fortie degrees: it is a temperate countrey, and hath very good waters, and much grasse, plummes, mulberries, nuts, melons, and grapes, which ripen very well. There is no cotton: and they apparell themselves with oxe-hides and deeres skinnes. * * * "

Hakluyt prefaces the conclusion of this account by the following:

"The foresayed Francis Lopez de Gomara in his generall historie of the West Indies, Chap. 215, writeth in manner following of certaine great and strange beastes never seene nor heard of in our knowen world of Asia, Europe, and Africa: which somewhat resembling our oxen, having high bunches on their backes like those on the backes of Camells are therefore called by him Vacas corcobados, that is to say, Crookebacked oxen, being very deformed and terrible in shewe [appearance], and fierce by nature: which notwithstanding, for foode, apparell, and other necessarie uses, are most serviceable and beneficiall to the inhabitants of those countreys. He reporteth also in the same chapter of certaine strange sheepe as bigge as horses, and of dogs which be used to carie burthens of 50. pound weight upon their backes."

The continuation of Gomara's account follows:

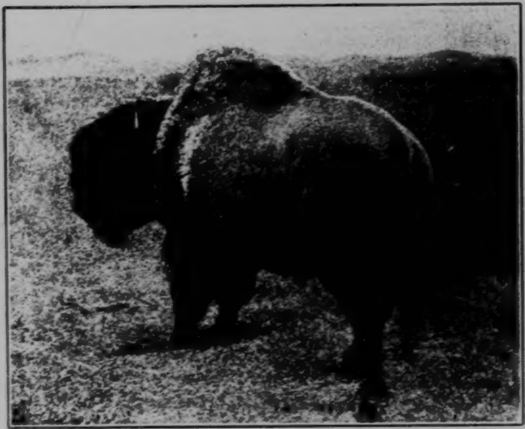
"All the way between Cicuic and Quivira is a most plaine soyle, without trees and stones, and hath but few and small townes. The men clothe and shooe themselves with lether; and the women, which are esteemed for their long lockes, cover their heads and secrets with the same. They have no bread of any kinde of graine: which I account a very great matter. Their chiefest foode is flesh, and that oftentimes they eate raw, either of custome or for lack of wood. They eate the fatte as they take it out of the Oxe, and drinke the blood hotte, and die not therewithall, though the ancient writers say that it killeth, as Empedocles and others affirmed: they drinke it also colde dissolved in water. They seeth [boil, or stew] not the flesh for lack of pots, but rost it, or to say more properly, warme it at a fire of Ox-dung: when they eate, they chawe their meate but little, and raven up much, and holding the flesh with their teeth, they cut it with rasors of stone, which seemeth to bee great bestialitie: but such is their manner of living and fashion. They goe together in companies, and moove from one place to another, as the wilde Moores of Barbarie called Alarbes doe, following the seasons and the pasture after their Oxen.

"These Oxen are of the biggnesse and colour of our Bulles, but their hornes are not so great. They have a great bunch upon their foreshoulders, and more haire on their fore part than on their hinder part; and it is like wooll. They have as it were an horse-manne upon their backe bone, and much haire and very long from the knees downward. They have great tuffes of haire hanging down at their chinnes and throates. The males have very long tailes, and a great knobbe or flocke at the end: so that in some respect they resemble the Lion, and in some other the Camell. They push with their hornes, they runne, they overtake and kill an horse when they are in their rage and anger. Finally, it is a foule and fierce beast of countenance and forme of bodie. The horses fledde from them either because of their deformed shape, or else because they had never seene them. Their masters have no other riches nor substance: of them they eate, they drinke, they apparell, they shooe themselves: and of their hides they make many things, as houses, shooes, apparell, and ropes: of their bones they make bodkins: of their sinewes and haire, thread: of their hornes, mawes, and bladders, vessels: of their dung, fire: and of their calves-skinnes, budgets, wherein they drawe and keepe water. To bee short, they make so many things of them as they have neede of, or as many as suffice in the use of this life."

"There are also in this countrye other beastes as bigge as horses, which because they have hornes and fine wooll, they call them sheepe, and they say that every horne of theirs weigheth is fiftie pounds weight.

"There are also great dogs which will fight with a bulle, and will carie fiftie pound weight in sacks when they goe on hunting, or when they remoove from place to place with their flockes and heards."

Elsewhere it is related that upon one occasion when Coronado's men charged in a body upon a large herd of buffalos the frightened animals rushed together into masses so crowded and terrified that hundreds were crushed or trampled to death; and that at another time, and when there was a ravine just ahead of them, the excited creatures in their frantic efforts to escape from the hunters, to the utter amazement of the Spaniards, plunged into the depression and so filled it with their bodies that the remainder of the herd "passed over upon them as on a bridge."



Rear View of a Buffalo Bull.
(From a Report of the Smithsonian Institution.)

Gomara, or his authority for his accounts of Coronado's expedition, would seem to have been of the belief that some of the Indian people had domesticated the buffalo, which certainly was not the case. But it is probable that before the coming of the white men with their fire-arms and horses that the buffalos were easier to approach and kill; the ordinary Indian methods of hunting them not being of a kind that would spread consternation and panic throughout a herd. Prescott, in his "Conquest of Mexico," quotes Gomara's reference to a "nation" dwelling on the northwestern borders of "New Spain" in about forty degrees of north latitude, the principal "wealth" of which consisted of great herds of domesticated buffalos—"oxen with a hump on the shoulders," from which the people got their clothing, food, and drink. These natives, according to this, must have been supposed by Gomara to live somewhere in or near central California, but they and their droves of tame buffalos never were heard of by any one else, nor did California ever possess any of the animals.

It has long been conclusively known that none of our Indians ever domesticated the buffalo, although the milk of the cow, which is yielded freely, would have been of great usefulness to them. As to the "sheepe," "as bigge as horses," to which Gomara refers, and which were described in the same terms by Coronado in one of his reports to Mendoza, Viceroy of New Spain, it is obvious that the animals were Rocky Mountain wild bighorns figuratively viewed at long range through Spanish magnifying glasses. It is harder, however, to account for Gomara's pack-bearing "great dogs." At the time of the Columbian discovery there were no animals in North America, outside of the Arctic land of the Eskimo, nearer to the dog tribe than the wolf and the fox. In South America, which had neither wolves nor foxes, there were, and still are, several varieties of dog-like or jackal-like animals, called "wild dogs," having also some of the characteristics of the wolf and the fox. These range over a large part of Brazil and southward toward the extremity of the continent, and occasionally have been seen in the extreme northern part of South America. But they are small, and could be made of no practical utility as burden-carriers, even if they should yield to domestication. As mentioned in an earlier part of this volume, the Aztecs of Mexico are said by the early Spanish historians to have had some half-tamed animals, which the Conquerors took to be and called "dogs," which creatures may have been the offspring of captive representatives of these South American animals. If any of the pueblo tribes of New Mexico possessed more or less dog-like "beastes" in Coronado's time, they may have been of the kind said to be kept by the Aztecs, and derived from some of the South American jackal-like animals in an earlier period, in which these may have ranged northward over much of Mexico. But if so, it is strange that we should have no further information of them, and also that they should have been represented as capable of carrying heavy loads. The Indians of our Atlantic seaboard, and of the entire immense valley of the Mississippi, had no animals in domestication when Europeans first encountered them; although some of the eastern tribes had reached a stage of culture in which they had developed the rudiments of tribal federation in their form of government. The acquisition of the pony from the "wild horses" of the plains by the plains Indians was entirely due to the influences of white men, just as the presence of those horses in the country was due to the Spaniards' occupation of Mexico and to their advance northward in their settlement of that country. The plains Indians never had seen a horse before the time of Coronado, and it is equally certain that the first dogs seen by the pueblo Indians were the few that were brought into New Mexico by Marcos de Niza and Coronado on their exploring expeditions in 1539 and 1540, respectively.

It appears that neither De Narvaez, De Soto, Ponce de Leon, nor Vasquez de Allyon ever saw a buffalo in their explorations of old Spanish "Florida," although parts of the country in which they wandered were ranged over by the animals in both beforetimes and after. Some of De Soto's men, who were sent into the northern part of Arkansas, reported having seen buffalo skins in possession of the Indians there, and were told that live buffalos were to be found five or six leagues farther north. The absence of the animals from the regions traversed by these explorers would seem to have been due to the shiftings, sometimes capricious, that occasionally occurred among the buffalos, whereby large areas were deserted, and might remain unvisited by them for many years, or be permanently abandoned. The Choctaw Indians are said to have had a tradition by which they accounted for the disappearance of the buffalos from Mississippi. It relates that during the early part of the eighteenth century a great drouth occurred which was especially severe in the open parts of the country and very bad everywhere. For three years not a drop of rain fell. The Nowubee and Tombigbee rivers dried up, and the forests perished. The elk and buffalo, which up to that time had been numerous, all migrated to the country beyond the Mississippi and never returned.

No Englishman got sight of the buffalos until about three-quarters of a century after Coronado's time. The earliest known record of them by an Englishmen is contained in "A letter of Sir Samuel Argoll touching his Voyage to Virginia, and actions there. Written to Master Nicholas Hawes, June, 1613." (Purchas: His Pilgrimes, 1625.) Argoll was an English navigator, who brought a cargo of grain to Virginia in 1612, and his reference to buffalos is as follows:

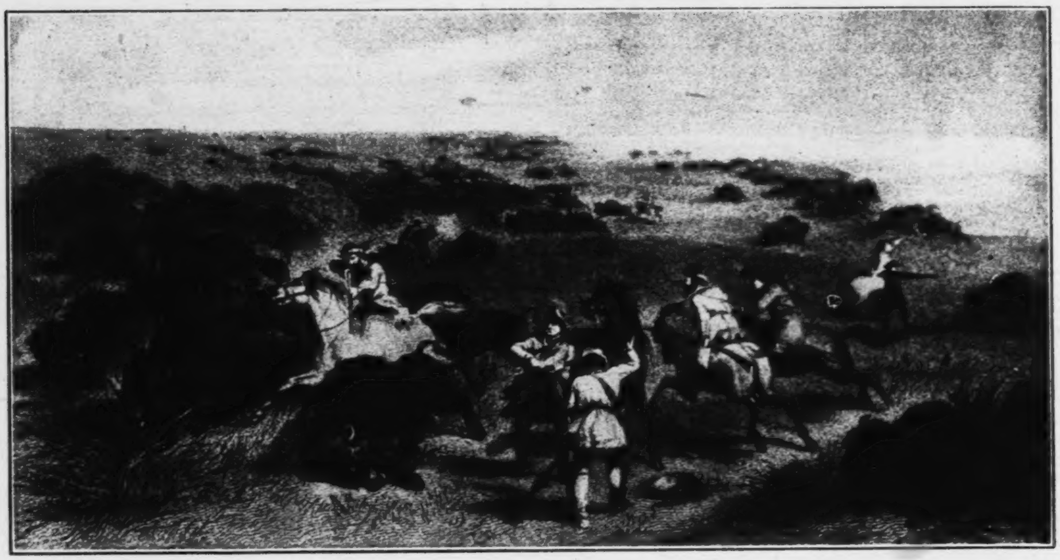
"As soon as I had unladen this corne, I set my men to the felling of Timber, for the building of a Frigat, which I had left half finished at Point Comfort, the 19. of March: and returned myself with the ship into Pembrook [the Potomac] River, and so discovered to the head of it, which is about 65. leagues into the land, and navgable for any ship. And then marching into the Countrie, I found great store of Cattle as big as Kine, of which the Indians that were my guides killed a couple, which we found to be very good and wholesome meate, and are very easy to be killed, in regard they are heavy, slow, and not so wild as other beasts of the wildernesse."

It is highly probable that Argoll saw these buffalos within fifteen miles of the city of Washington and possibly within the present limits of the District of Columbia.

In 1624 an English fur-trader named Henry Fleet sailed up the Potomac to trade with the Anacostian Indians, who then occupied the site of the city of Washington, and also with the Indians farther up the river. The following is from the trader's journal:

"Monday, the 25th June, we set sail for the town of Tohoga, where we came to an anchor 2 leagues short of the falls. * * * The Indians in one night commonly will catch thirty sturgeons in a place where the river is not above 12 fathoms broad, and as for deer, buffaloes, bears, turkeys, the woods do swarm with them."

In 1729 a party of surveyors under Colonel William Byrd surveyed the boundary line be-



"Among the Buffalos."
(From General John C. Fremont's "Memoirs.")

tween Virginia and North Carolina. In October of that year, while these people were on "Sugar Tree Creek" three buffalos were seen, but none of them was killed. On the return journey in November a buffalo bull was killed on the Sugar Tree, which is in Halifax County, Virginia; longitude 78 degrees, 40 seconds, west, and 155 miles from the coast. This buffalo was found in a thick forest, which is thus described: "The woods were thick a great Part of this Day's Journey, so that we were forced to scuffle hard to advance seven miles, being equal in fatigue to double that distance of Clear and Open Ground." One of the creeks crossed by this party was named "Buffalo Creek," and "so named from the frequent tokens we discovered of that American Behemoth."

In October, 1733, when Colonel Byrd's party was on another surveying expedition in the same part of the country some of the men killed another buffalo near Sugar Tree Creek, of which incident Byrd's account contains some rather repulsive details:

"We pursued our journey thro' uneven and perplext woods, and in the thickest of them had the Fortune to knock down a Young Buffalo two years old. Providence threw this vast animal in our way very Seasonably, just as our provisions began to fail us. And it was the more welcome, too, because it was a change of dyet, which of all Varietys, next to that of Bed-fellows, is the most agreeable. We had lived upon Venison and Bear till our stomachs loath'd them almost as much as the Hebrews of old did their Quails. Our Butchers were so unhandy at their Business that we grew very lank before we could get our Dinner. But when it came we found it equal in goodness to the best Beef. I was in pain lest our sick men might suffer by the Rain but might have spared myself the Concern, because it had the effect of a cold bath upon them and drove away their distemper or rather changed it into a Canine appetite that devour'd all before it. It rained Smartly all night long, which made our Situation on the Low-Ground more fit for otters than men."

A little later Byrd's party fell in with a buffalo bull, "but spared it"; the earliest known instance of the kind, the like of which has been an extremely rare occurrence ever since.

Colonel Byrd, as well as others in that period, was of the belief that buffalo hair could be used to good advantage for making cloth, and of this he says:

"The Hair growing upon his Head and Neck is long and Shagged, and so Soft that it will spin into Thread not unlike Mohair, and might be wove into a sort of Camlet. Some People have Stockings knit of it, that would have served an Israelite during his forty Years march thro' the Wilderness."

The pioneer Spaniards in New Mexico had the same notion, and in the Spanish account of Coronado's expedition it is said that handsome clothes certainly would be made of buffalo hair, though they thought it could not be dyed, "for it is a tawny red." The western Indians made some use of it for belts, scarfs, ropes, and the like, and the white people tried it in weaving; but its utility never proved of any considerable importance to either race.

There are numerous later references than Byrd's to the presence of buffalos in Virginia, and judging from these they appear to have been more abundant there than in any other southern State on the Atlantic slope. In North Carolina "Buffalo Ford" in the Catawba River, some four miles from Statesville, was so named about 1750 from the circumstance of it being a favorite crossing-place of the animals. There is plentiful evidence of the presence of the buffalo in the northern part of South Carolina during the first half of the eighteenth century, and it is positively asserted that "we know that some of those who first settled the Abbeville district in 1756, found the buffalo there." The extreme southeastern limit of the buffalo's range in the United States was on the coast of Georgia, near the mouth of the Altamaha River, opposite St. Simon's Island. Francis Moore, in his "Voyage to Georgia," made in 1736, and reported upon in 1744, says: "The island [St. Simon's] abounds with deer and rabbits. There are no buffalo in it, though there are large herds upon the main"; and elsewhere he refers to buffalo-hunting on the main-land near Darien. Oglethorpe's enumeration (1733) of the wild beasts of the South-Carolina-Georgia region mentions "deers, elks, bears, wolves, and buffaloes." At the time of Moore's voyage to Georgia the interior of the area of that State still remained almost wholly unexplored, and therefore it seems certain that had not the large herds of buffalo on the main-land been within a distance of from twenty to thirty miles or less from the coast the early colonists would have had no knowledge of them; nor would the Indians have taken to the war-path against the whites at Darien "under pretense of hunting buffalo."

In the States of Pennsylvania and New York the buffalos probably were less numerous than in Virginia, yet there were enough of them to excite wondering comment. On a map of the country that now forms western Pennsylvania, published in 1771 by Peter Kalm, there appears a marsh called "Buffalo Swamp," situated between the Alleghany River and the west branch of the Susquehanna, where, it is said, there "were thousands of buffaloes." Near where the town of Clarion now stands in northwestern Pennsylvania one of the early settlers built his cabin near a salt spring to which buffalos came in such numbers that at one time he "supposed there could not have been less than two thousand in the neighborhood of the spring." During the first few years of his residence there the buffalos came frequently to the spring in droves of about three hundred each. In New York they were known at least as far east as the long, tongue-like Seneca Lake and thence northward to the shores of Lake Ontario. Buffalo Creek, at the mouth of which stands the city of Buffalo, had its name from the presence of buffalos in the country it drained. The earliest allusion to the existence of buffalos in the vicinity of Lake Ontario is contained in the following passage from Morton's "New English Canaan," printed in 1637:

"They [the Indians] have also made descriptions of great heards of well growne beasts that live about the parts of this lake ["Erocoise"], such as the Christian world (untill this discovery) hath not bin made acquainted with. These Beasts are of the bignesse of a Cowe, their flesh being very good foode, their hides good lether, their fleeces very usefull, being a kinde of wolle as fine almost as the wolle of the Beaver, and the Salvages doe make garments thereof. It is teene yeares since first the relation of these things came to the eares of the English."

Mounted Group of Buffalo in the United States National Museum at Washington.
(*From a Report of the Smithsonian Institution.*)

The "beast" referred to here undoubtedly was a buffalo, and, while the name of the lake, "Erocoise"—a word that seems to be a form of "Iroquois"—makes the identity of the body of water somewhat uncertain, the present-time conclusion is that it was Lake Ontario. If

"Erocoise" is the same as "Iroquois," it identifies the lake with the country of the Iroquois Indians, who occupied central and western New York.

We find the buffalos in increasing number as we pass westward toward the Mississippi River. The pioneer settlers of eastern Tennessee, who entered that region more than twenty years before the War of the Revolution, found buffalos in the country; in 1769 Daniel Boone saw great herds of them grazing in the valleys there between the ridges of the Cumberland Mountains; and, according to the reports made by backwoodsmen who visited the country around the site of Nashville about that time, there were in that section "immense numbers of buffalo and other wild game. The country was crowded with them. Their bellowings sounded from the hills and forest." When Daniel Boone entered the Red River region in Kentucky, "The buffaloes were more frequent than I have seen cattle in the settlements, browzing on the leaves of the cane, or cropping the herbage of those extensive plains, fearless because ignorant of the violence of man. Sometimes we saw hundreds in a drove, and the numbers about the salt springs were amazing." John Filson, writing, in 1784 of the Blue Licks in Kentucky, said:

"The amazing herds of buffaloes which resort thither, by their size and number, fill the traveler with amazement and terror, especially when he beholds the prodigious roads they have made from all quarters, as if leading to some populous city; the vast space of land around these springs desolated as if by a ravaging enemy, and hills reduced to plains; for the land near these springs is chiefly hilly. * * * I have heard a hunter assert that he saw above one thousand buffaloes at the Blue Licks at once; so numerous were they before the first settlers had wantonly sported away their lives."

Across in Ohio they seem to have been less abundant. The early settlers of that State encountered some of them in the valley of the Scioto River and in the country around the headwaters of that stream; and in earlier times they were found along the southern shore of Lake Erie. The French pioneer, La Hontan, explored Lake Erie in 1687, and thus refers to the deer, turkeys, and buffalos he saw on its southern shore:

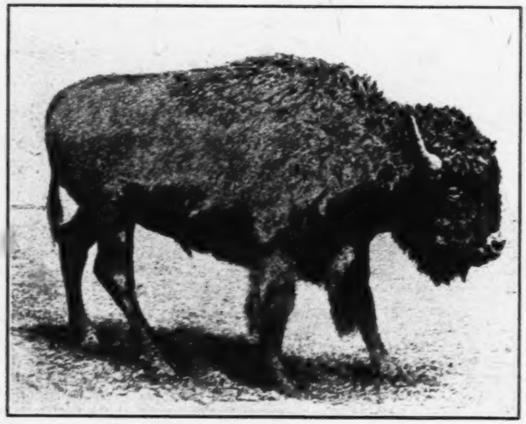
"I cannot express what quantities of Deer and Turkeys are to be found in these Woods and in the vast Meads that lye upon the South side of the Lake. At the bottom of the Lake we find beeves upon the banks of two pleasant Rivers that disembogue into it, without Cataracts or Rapid Currents."

If Michigan ever possessed any buffalos they probably were in its southwestern parts, where they may have overlapped from the prairies of northern Indiana; but there is no actual knowledge of their presence within the area of that State. The region of Indiana and Illinois was well stocked with buffalos when white men first entered it, the great prairie sections being especially favorable to these animals. Father Marquette described the prairies along the Illinois River as being "covered with buffaloes," and Hennepin, writing about northern Illinois between the Illinois River and the southern end of Lake Michigan, said that "there must be an innumerable quantity of wild bulls in that country, since the earth is covered with their horns. * * * They follow one another, so that you may see a drove of them for above a league together. * * * Their ways [trails] are as beaten as our great roads, and no herb grows therein." Hennepin was the first white man who met with the buffalos in the region of the great lakes. In 1679 he ascended the St. Lawrence River to the lakes, and finally made his way through northern Illinois and up the Mississippi to the site of Minneapolis.

As we have mentioned heretofore, Wisconsin's buffalos appear to have limited their range to the western half of that State. A line drawn from Milwaukee northwestward, and crossing the boundary a few miles southwest of Superior, would very nearly define the eastward limit of the buffalos' range in Wisconsin, where there are some men still living who saw large herds of them in that part of the country.

How it happened that Alabama, with the probable exception of its northern edge, had no buffalos, while the animals were in Georgia upon the east, and in Mississippi on the west, is hard to tell. But there is no knowledge, from either

Indian or white sources, of the presence of the animals within the area of that State. At the beginning of the eighteenth century they were, as we have said, abundant in southern Mississippi and in southeastern Louisiana, down to the coast, and even upon the Delta of the Mississippi. In a "Memoir addressed to Count de Pontchartrain" in December, 1697, the author, De Remonville, describes the country around the mouth of the river, and further says: "A great abundance of wild cattle are also found there, which might be domesticated by rearing up the young calves." This writer goes on to say that "the trade in furs and peltry would be immensely valuable and exceedingly profitable. We could also draw from thence a great quantity of buffalo hides every year, as the plains are filled with the animals." This makes it plain enough that the "wild cattle" of the Mississippi delta were buffalos. The presence of buffalos in the delta country also was observed and recorded by D'Iberville in 1699. In a document entitled "Annals of Louisiana from 1698 to 1722, by M. Penicaut," the author tells of killing buffaloes on the shores of the Bay St. Louis in 1698: "The next day we left Pea Island, and passed through the little Rigolets, which led into the sea about three leagues from the Bay of St. Louis. We encamped at the entrance of the bay, near a fountain of water that flows from the hills, and which was called at this time Belle Fountain. We hunted during several days upon the coast of this bay, and filled our boats with the meat of the deer, buffaloes, and other wild game which we had killed, and carried it to the port (Biloxi)." Another record of that time tells of buffalos being killed at the mouth of the Red River and at Natchez: "We ascended the Mississippi River to Pass Manchac, where we killed fifteen buffaloes. The next day we landed again, and killed eight more buffaloes and as many deer."



"Spike" Buffalo Bull.
(From a Report of the Smithsonian Institution.)
A "spike bull" was a young one whose horns still were nearly straight above the base-curve—or spike-like.

While the early settlers in various sections of the country east of the Mississippi River thought the buffalos were abundant around them, the animals were, in comparison with the innumerable host that existed in the vast region west of that river, mere bands of skirmishers on the eastward flank of the mighty main army of these beasts. In many parts of the western prairies and plains they often so covered the earth that they made the landscape appear to be overspread by one great brown buffalo-robe.

All of Minnesota except the part to the north of the westward projection of Lake Superior, the whole of Iowa, and most of northern Missouri, abounded with buffalos when white men first entered their territories; but in southern Missouri, as well as in Arkansas and in that part of Louisiana north of the Red River, they were less numerous than in Tennessee and Kentucky. In southwestern Louisiana, near to and upon the coast, there was a larger supply—a moderate overlapping of the swarming abundance that existed in Texas. It is said that "They were found in immense herds on the coast of Texas at the Bay of St. Bernard (Matagorda Bay), and on the lower part of the Colorado River [of Texas] by La Salle in 1685, and thence northward across the Colorado and Brazos Rivers." Because of their number on the Colorado the French later gave the name of "La Rivière aux Bœufs" to that stream. Early in the history of New Mexico (in 1584) the Spaniards named the Pecos River "Rio de las Vacas," or the River of Oxen, because of the multitudes of buffalos they saw in its valley.

The number of buffalos west of the Continental Divide relatively was small. As we have heretofore remarked, some writers in dealing with their geographical distribution have it that the animals never entered Arizona, but this appears to be incorrect, as a few small bands of them were said by Arizona pioneers to have ranged along the lower reaches of the Colorado River. They were rather numerous in the northerly parts of the western slope of Colorado, and when Fremont, on his second "exploring" expedition, was returning from the Columbia River country in 1844 he found, according to his report, buffalos "spread in immense numbers" over the valleys of the Green and the Yampai (or Bear) Rivers—the Yampai being entirely a Colorado stream. Some of these animals ranged over into the northeastern parts of Utah—the upper stretches of the Green River country in that State, and some were found along the Utah-Idado line, but there is no evidence that they ever entered the western, central, and southern parts of the Utah region. Nevada is credited with having had a few buffalo in its northeastern corner, probably an overlapping from Idaho, in most parts of which they were fairly plentiful. California had none, and Oregon most of the time only a few straggling bands in the eastern parts of its area, while the Washington country was quite destitute of them.

In the Dominion, the most northerly locality known to have been reached by the buffalos is recorded as an observation of Franklin in 1820 at Slave Point on the north side of the Great Slave Lake: "A few frequent Slave Point on the north side of the lake, but this is the most northern situation in which they were observed by Captain Franklin's party." Some small herds crossed the Divide by way of the Kootenai Pass, which is only a few miles north of the boundary line; and a greater number did so by the Pass now traversed by the Canadian Pacific Railway. But the popular range of the buffalos in the Canadian Dominion was the continuation of the great northern pasture region that begins on the upper Missouri River and that extends to the Great Slave Lake. The limits of the Dominion buffalo-range to the eastward would, as already mentioned, be approximately defined by a line drawn from the middle part of the Great Slave Lake southeastward past the southward end of Lake Winnipeg, and on to the boundary line at the western side of the Lake of the Woods.

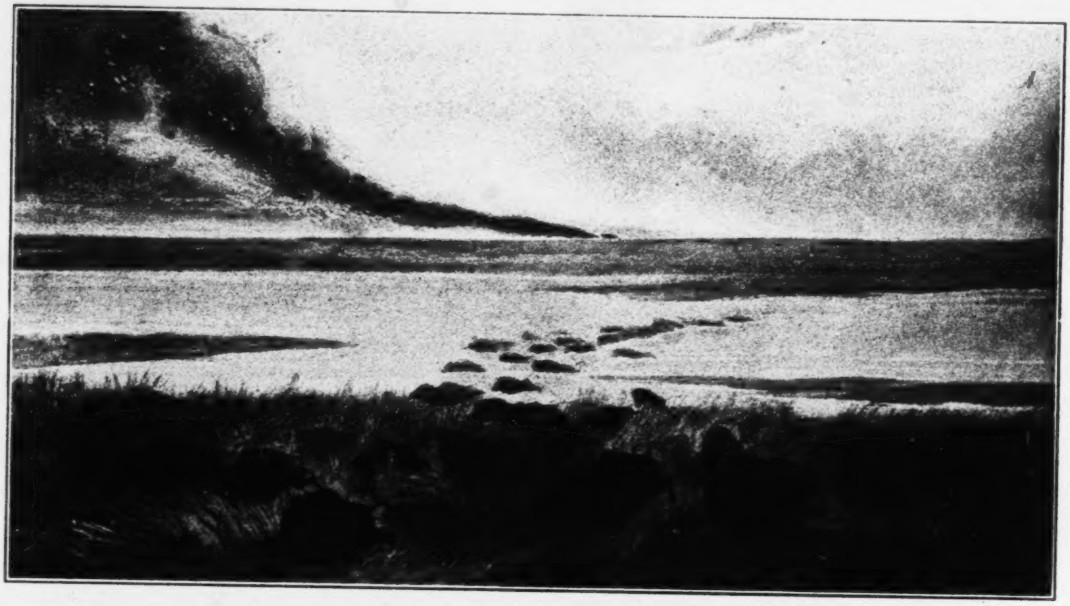
Upon the prairies and plains of our trans-Mississippi Great West, together with those of the Canadian Dominion, the buffalos appear to have existed for ages in number probably far greater than those of any other large quadruped that ever lived upon the earth. Certainly there has been none within the historical period, the host of which came anywhere near equaling what that of the American buffalos must have been when they first became known to white men. The southern half of Africa long has been, and still is, very prolific in the larger quadrupeds, but it is more than probable that all of its "game" animals combined never exceeded in number that of our buffalos at the beginning of the nineteenth century. The plains regions seem to have been as well adapted to these animals as if they were designedly provided for them, and notwithstanding that the pasturage comparatively was thin, and that they were almost the sole support of the Indian population of the plains, the animals easily maintained the immensity of their host.

Generally speaking, the plains buffalos were migratory in their habits. In the spring there was a northward movement of the body of the animals as a whole and in the autumn a retrograde shifting; but in these slow-moving changes of location no given part of the mass went very far. The herds that wintered in Texas, the Indian Territory, and New Mexico, probably spent their summers in Nebraska, southwestern Dakota, and Wyoming; the winter herds of Kansas, Colorado, Wyoming, Nebraska, and southern Dakota went to northern Dakota and Montana; while the great herds of northern Dakota and Montana summered on the Grand Coteau des Prairies lying between the upper Missouri and the Saskatchewan Rivers. The Dominion herds in their northward shift went toward the Great Slave Lake country. But in all seasons there were more or less buffalos—the lazier and perhaps the more indifferent—in most parts of the great range, though there would be at times broad stretches of country entirely clear of them. When shifting to the northward they usually moved in enormous masses or aggregations of herds, but upon their return they moved sometimes in comparatively small bodies, much scattered; at other times the return movement might be made with a rush in large masses, in which stretches of considerable distance would be covered on the double-quick. It would seem that the northward migration was for a change of climate and scene rather than for one of pasturage, for, generally speaking, the more southerly pastures were the better, those in most of the Texas range having been the best of all.

The buffalos of the "parks" and other grazing districts in the mountainous parts were less migratory, and many of these herds remained upon their pre-empted ranges the year 'round. Those of the country east of the Mississippi were less migratory than those of the plains, and, like some of their kindred of the western mountains, most of these eastern herds appear to have remained from season to season within the comparatively small areas that had been their abiding places as long as they could remember. Their numbers, in proportion to the extent of territory in which they were known, were very small, if compared with the hordes of the plains, and nearly everywhere the pasturage in any given grazing district was sufficient amply to supply the few thousands occupying it with food throughout the year. While the forested parts of the eastern country were not so favorable to the multiplication and support of these animals as were the prairies and plains of the West, it would seem that the thinness of their ranks largely was due to the relatively greater Indian population there, which made proportionately heavier demands upon them for food.

Like an army, a large herd of plains buffalos put out guards or sentinels to keep watch and to warn the rest in case anything unusual occurred, or uncommonly dangerous enemies, which ordinarily meant either red men or white ones, came into view. These pickets were to be seen in groups of four or five bulls at some distance from the main body, and when alarmed these would go on a run directly into the central part of the mass of their peacefully-grazing associates, to spread the news of danger.

But notwithstanding the prudence implied by such military arrangements, herds of all sizes easily were stampeded, as the animals were liable to become panic-stricken from trifling circumstances, and frequently without any assignable cause. The simplest affair sometimes would start an entire herd: a prairie dog barking at the entrance to its burrow, or the shadow of



"Buffalos Escaping from a Prairie Fire"
(*From General John C. Fremont's "Memoirs."*)

one of themselves, or that of a passing cloud, might be sufficient to make them run for miles, as if a real and dangerous enemy were at their heels. In the event of a stampede, all rushed off together as if all had gone mad at once, and at such times, when badly frightened, they have often been known to plunge blindly over a cliff-like places, tumbling in heaps, trampling to death, or crippling, many of their comrades; and then the "prairie lawyers," as the irreverent plainsmen nicknamed the wolves, would have a highly satisfactory feast. Usually such a panic-stricken herd would overwhelm and trample into pulp any living creature that was in front of it and unable to avoid the oncoming mass; and in several known instances both man and horse met death under the hoofs of a herd of stampeded buffalos. Sometimes the leaders could be made to diverge by the discharge of guns and by shouting and waving blankets and the like, and, as those behind followed the leaders, a stampeding herd might thus be split into two parts. But imperiled experienced men, both red and white, always sought safety in flight whenever that course was possible.

However, when a large herd of buffalos was in motion, even when not in panic, it was very hazardous to attempt to arrest its progress or to turn its course. Some of the leaders might be demoralized and diverted, but the great mass usually would drive onward, crowding those that were ahead, without regard to consequences. Red hunters, as well as white ones, if they undestood their business, always attacked a large herd upon its flanks. Rivers caused no halt in the movements of such herds, and upon frequent occasions they stopped steamboats on the upper Missouri. In the earlier time, when Lewis and Clarke, on their memorable exploring expedition across the continent, were returning down the Missouri in 1806, they encountered near the mouth of the Yellowstone several herds crossing the larger stream. Of these they made the following record in their journal:

"The buffalo now appear in vast numbers. A herd happened to be on their way across the river. Such was the multitude of these animals that although the river, including an island over which they passed, was a mile in width, the herd stretched as thick as they could swim completely from one side to the other, and the party was obliged to stop for an hour. They consoled themselves for the delay by killing four of the herd, and then proceeded till at the distance of forty-five miles they halted on an island, below which two other herds of buffalo, as numerous as the first, soon after crossed the river."

In later times moving herds threatened to overwhelm emigrants and their caravans on the plains; and still later they derailed locomotives and cars, until the trainmen learned by experience the wisdom of stopping their trains whenever a herd of buffalos asserted its right of way.

So lived and moved these extraordinary animals, as no other quadrupeds ever have: often in great multitudes, like grand armies in review, covering hundreds of square miles at once. Out where the sky bent down to the earth and over all the land that lay between, such masses left visible but few large patches of the soil, and presented a spectacle the like of which never was seen elsewhere in this world and that never will be seen again.

James M. Daugherty.

Every human life contains a romance. Some lives have many romances. The story may read like a tale from far-off Arabia, or it may be tinged with experiences of hardships that give to it a permanent, practical value. All history is instructive and biography is especially so, as it presents in vivid coloring the experiences of individuals whose lives entitle them to a place in permanent record. The time is rapidly approaching when biography will be one of the essential subjects taught in the public schools of America.

When that time arrives, the period immediately following the Civil War will attract the attention of many students. This period brought to the front many men who gained their first experiences in the war and at the same time gained a knowledge of their own abilities and a confidence in themselves which is a more valuable possession to its fortunate owner than the mere acquisition of money. Nothing can prevent a young man from advancing in the world who is trained in self-reliance and equipped with a "level" head and worthy ambition. He attracts to himself the agencies and forces necessary for success—and he succeeds.

James M. Daugherty is one of the remarkable cattlemen of Texas, who achieved success because he deserved it. Born upon the frontier, he grew up in the midst of a peculiar type of civilization, which is no longer to be found on the continent. Too young to take an active part as a soldier in the Civil War, he served as an express-rider on the Texas border, and by personal contact with men and conditions learned many lessons not taught in the books. He was one of the pioneers who marked out the trails to the north, starting before the railway penetrated Kansas, into Southwestern Missouri as his objective point. Later he traversed the plains over all the great cattle highways, ranched in Colorado, Western Kansas, New Mexico, and Indian Territory, and finally the scene of his operations has shifted to Western and Southwestern Texas. There he owns and controls ranges aggregating 1,500,000 acres, and his herds, amounting in total to 50,000 graded cattle, give him a position as one of the leading cattle-owners of the United States. During thirty-seven years in which he has been engaged in this industry, Mr. Daugherty has handled millions of cattle. For fourteen years, from a leased ranch of 200,000 acres in the Creek Nation, Indian Territory, he fattened 50,000 cattle a year for the market, at the same time operating extensively in Texas and New Mexico. He has branded 12,000 calves a year, but has never been a feeder, as he has always fattened his cattle on the range or sold them to feeders.

"Jim" Daugherty, as he is known throughout the length and breadth of the live-stock region, is a man of graceful figure, somewhat above the average in height, with a warm handshake and a pleasing salutation for everyone he meets, and it is acknowledged by his friends that he is endowed with a capacity for business and for managing large affairs allotted to few men. At fifty-three years of age, in the prime of life, he is one of the powerful factors in the cattle industry and gives promise so to remain for many years to come. He has seen the Indian driven from the range to make room for the white man; the buffalo exterminated to make room for the cow; and now he sees the great cattle-owners gathering the herds within enclosed pastures before the irresistible advance of the small settler. His range of vision covers all the interesting period from 1865 to the present time, and as the "boy contractor" he delivered 40,000 head of cattle to the Government for distribution at Indian agencies. The life of a man who appears to have been a born leader, reaching back to the close of the Civil War, cannot fail to be of unusual interest.

Mr. Daugherty is an interesting talker, and he has an original way of expressing himself. "When I was a boy fourteen years of age," said he, "I reasoned as follows concerning

J M Daugherty

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the stock business: 'The raising of hogs may be a good business. Sheep are all right, they increase rapidly, and there is always a market for wool, but sheep are liable to take scab or foot-rot and die. Horses are pretty, they are nice to have, and we all ride, but the country has lots of horses and may become over-stocked. Cattle furnish the best meat in the world, and people are going to eat it as long as grass grows and water runs.' As cattle seemed to me to be the most desirable property in the stock list, I decided, when a boy, in favor of cattle, and I have never known of any reason for changing my opinion.

"Conditions are changing, but they will adjust themselves. The time is rapidly drawing ot a close for handling large herds in the United States, and the only breeding country now available is Mexico. There the laws are such that the land cannot be taken up by the little settler. On this account many large ranches will be operated by Americans in Mexico. In this country it requires forty acres of range for an animal, and land is not available or is too valuable; but the cattle business will continue under new conditions, and there will be as much money in it as ever when properly conducted.

"My idea of the cowman is that he should not have too much book education; it may interfere seriously with him as a cowman. I said to my son, now sixteen years of age: 'I do not care for you to stay too long in school; it might take the snap out of you. Master a little mathematics, learn to read and write and understand grammar, and I do not care whether you learn anything else in school or not. I believe in some education, but not too much.

"One of my plans is never to let a good man go. I have paid many a man a salary to do nothing in order to have him when I wanted him. A bad man is dear at no price, but it is better to pay a good man and let him rest for six months than to lose him. A cowman should start at the bottom, sleep on the blanket, eat any kind of grub, and he will learn the business. I regard the cowman as one of the brightest men in the world, and he is safe to tie to. In the earlier days a coward lost his life or he went home. He was out of place in the cow camp and actually dangerous to the rest of us, for we could not depend on a coward in an emergency. A man is born with a certain amount of mettle in him; it belongs to his nature. While he may be as good as another man in other respects, he can't face the music. I remember a little fellow who came out from St. Louis to Indian Territory while I was ranching in the Creek Nation. He came to clerk in a store. There was a pitched battle in town, and two men were killed that day. The little clerk crawled between the salt barrels. He was honest, a good business man, and a perfect gentleman, but the boys guyed him until he could stand it no longer, and in six months he disappeared. He lacked the grit to make a genuine cowman."

At one time, on the Washita River, Mr. Daugherty had opportunity of testing the mettle of fourteen cowmen, who were assisting him in driving a herd of 5,000 cattle. In those days constant vigilance was the only assurance of safety, and when a herd was on the trail in the Indian country, picked men rode ahead of the herd and experienced riders kept within hailing distance along the flanks. Life might depend on a single word, and men were trained to respond instantaneously to orders Such was the nervous condition of men leading this hazardous life, that a cowman spending the night on the open prairie at a strange cow-camp, warned his entertainers not to touch him at night if they wished to wake him. "Speak to me," said he, "but don't put your hand on me, or I may shoot you."

As Mr. Daugherty and his outfit were moving forward on the trail, a war party of seven hundred Indians suddenly dashed into view. The cowmen were all armed with Winchesters and each man carried two six-shooters. A signal from Mr. Daugherty brought every cowman to his side. Had they hesitated, the entire party would have been annihilated. The cattle were abandoned, and the brave little band gathered on a knoll awaiting the attack. The order was, "No bad breaks!" No man was to fire unless the Indians opened battle, and then it would be a fight to the finish. Every man accepted the situation, and every man expected to die. The Indians recognized that they were facing a desperate body of men, and they would lose perhaps one hundred warriors before the enemy could be wiped out. Result: The Indians killed seven hundred head of cattle, but not a single shot was fired at the white men.

The same presence of mind that saved the lives of Mr. Daugherty and his cowboys saved the life of a minister of the gospel who was leaving church one Sunday, during the early days of Fort Worth. Mr. Daugherty was conducting a drove of cattle through the settlement, the trail leading along what is now Main Street in that city. When the cattle reached the point about where Eighth Street crosses Main, without an instant's warning, the entire drove began to stampede. The affrighted cattle plunged straight ahead, and the minister was walking with his head bent towards the ground, right in front of the rushing herd. Mr. Daugherty was fortunately riding ahead of the cattle, and his practiced ear instantly detected the danger. He turned his horse, rode to the side of the minister, seized him and lifted him behind the saddle, and succeeded in carrying the rudely awakened man to a place of safety. It was a "close shave," but, like many other bold dashes made by the daring cowman, it ended happily. The pioneers of the plains lived in the midst of danger, they courted excitement, and incidents like the one here given were regarded as ordinary occurrences, inseparably connected with life in a new country.

James M. Daugherty was born in Texas County, Missouri, February 27, 1850. When he was a year old his parents moved to Texas, so that Mr. Daugherty, for all practical purposes, is a son of the Lone Star State. His father, James M. Daugherty, was of an old Virginia family. He was a live-stock raiser, and a man of large influence wherever known. He held offices of trust in Missouri, but died in Denton County, Texas, three years after taking up his home in the State. The mother of Mr. Daugherty was Miss Eleanor McGhee, a member of the McGhee family of Kentucky. She died in Denton County, in May, 1860. There were seven children in the family: C. C., T. W., Matthew, W. A., B. D., Mary Jane (now Mrs. Eddleman, of Muscogee, Indian Territory), and James M. The property of the family was mainly invested in negroes, and was swept away during the Civil War.

The Daugherty brothers all took part in the war. T. W. Daugherty was a member of the State Legislature, and C. C. was county sheriff, but they resigned to espouse the cause of the Confederacy. T. W. recruited a company for the 29th Texas Cavalry and commanded the company during the war. James M. was too young when the war opened to take any active part, and attended McKenzie's College, near Clarksville, Texas, from 1861 to 1864. At the age of fourteen he joined Cooper's Brigade, which was operating in Indian Territory, and as his youth prevented regular enlistment, he was accepted as express rider, and for a year performed active service as bearer of dispatches, participating in several engagements. He was at Sherman, Texas, when peace was declared. After a visit to his home in Denton, he went to San Antonio and engaged as cowboy for James Adams, a prominent cattle-raiser of Southwestern Texas, who proved a good friend of the ambitious and energetic young man.

In 1866 Daugherty decided to enter business on his own account, although only sixteen years of age. His experience in the Army gave him valuable information concerning trails and outdoor life, and he persuaded Mr. Adams to let him have a herd of 1,200 cattle to drive to a new market that was opening in Missouri. The war had practically wiped out the cattle in many of the States in 1866. Texas was the only State that could claim any great number of cattle. It is estimated by some old cattlemen, that there were 7,000,000 or 8,000,000 cattle in Texas at the close of the war. The State had not been overrun by great armies, and the beef supply was almost as great in Texas as it is to-day. The herds of many of the Northern States were therefore recouped from the vast ranges of Texas.

The drive from Southern Texas to Missouri was accompanied with danger, as the country was infested by desperadoes from armies of both the North and South, and human life was held at little value. Arriving in Southwestern Missouri, with Sedalia, the railway terminus, as the objective point, Mr. Daugherty and a companion, who were riding ahead of the cattle, were unexpectedly attacked by a party of twenty Jayhawkers. The companion of Mr. Daugherty was killed, and he was taken prisoner and carried to Cow Creek, where he was tied to a tree. The cattle in the meantime had been stampeded, and one hundred and fifty beeves were separated from the herd and not seen again. The robbers held a conference as to whether they should hang the young cowman or burn him, alleging that he was introducing fever-infected cattle into Missouri. This charge was merely a pretense. The prisoner felt that the moment was critical, as two men had been hanged at the same spot the day before, and he made a plea, presenting his youth as an extenuation, which would be interesting reading at this time if it could be reproduced. The appeal of the youthful stranger and his tone of sincerity touched the heart of one of the desperate men, and he espoused the cause of the boy. This led to an angry debate, but the cause of mercy prevailed, and Daugherty was permitted to live. At different times he has attempted in vain to learn the name or whereabouts of his savior, but he never saw the man after that exciting hour. The main body of the herd had been collected by the cowmen, and a short time afterwards the cattle, minus one hundred and fifty which were taken by the robbers, were sold for $35 a head to a purchaser at Fort Scott, Kas. Mr. Daugherty received money enough to pay for the whole herd and have a snug profit besides.

This was a tragic introduction to life on the trail, but for several years Mr. Daugherty drove herds to the north. In 1867 he drove to Junction City, Kas.; in 1869 to Nevada; in 1871 to Omaha; and in 1871 he conducted a large herd to the spot where Muscogee now stands in Indian Territory. The year following he established a ranch sixty miles east of Trinidad in Colorado Territory, where he operated for two years. In 1873 he drove 10,000 beef cattle over the trail to Cheyenne, Wyo., where he sold the entire herd to contractors who were supplying Indian agencies. The next step of Mr. Daugherty was to secure a contract himself to supply the Cheyenne and Arapahoe Agency, the Kiowa and Comanche and the Washita Agencies in Indian Territory with beef. In two years he delivered 40,000 cattle to these agencies, making deliveries twice each week. Mr. Daugherty's extensive operations in Indian Territory gave him an intimate acquaintance with Indian character and a working knowledge of the plains. After closing out his Government contracts he moved the stock that was left over, to Stonewall County, Texas, on the south fork of the Brazos River, and as Abilene was his nearest supply point, he established his home in that place and engaged in raising, buying, and marketing cattle on a very large scale. He now has three ranches—two in West Texas and one in New Mexico, all within convenient access of El Paso, where he is preparing to establish his permanent home.

"El Paso," said Mr. Daugherty, "is destined to be the leading city of Texas. It has a beautiful climate, is surrounded by a fine grazing country, and the mining interests are highly promising. It is the gateway into Mexico, New Mexico, Texas, Arizona, and California, and has many advantages of a great commercial and industrial character."

Mr. Daugherty says there was more profit in cattle during the early days of the trail than at present. The trail was cheaper than the railroad. It cost 50 to 75 cents a head to drive cattle from Southern Texas to Kansas points, and $1.00 to drive to Wyoming and Montana points; the railway charge is $3.00 or $4.00. Wonderful opportunities were open to the early cattleman. All West Texas and many counties of the Gulf coast was a great cow country, and the little settler was in evidence only at intervals of twenty-five or fifty miles. Mr. Daugherty remembers when the section of land on which the business part of Dallas is located was offered for a pair of boots. "Why didn't you buy the land?" was asked of the old-timer who first told the story. "I didn't have the boots," was the reply.

Mr. Daugherty is interested in a valuable mining property of the State of Chihuahua, Mexico, one hundred and fifty miles from the railway, in the Sierra Madres. The organization known as the Southern Mining Company, with headquarters in Kansas City and El Paso, owns a group of twelve properties carrying two or three ounces of gold to the ton and one hundred ounces of silver. The experts report immense possibilities in these properties, and systematic development on a thorough business scale is in progress. The mine is reached only over mountain trails by means of burros.

In 1875 Mr. Daugherty was united in marriage to Miss Bettie Middleton, daughter of D. L. Middleton, one of the pioneer cattlemen of Texas, with headquarters in Hood County. Five children have been born of the union: Nora (deceased), Mabel, Lillie, Cleveland, and James M., Jr. The latter promises to be a worthy successor of his father in the live-stock business.

The limitations of space in this work make it impossible to go into details of many interesting stories that could be presented from the varied experiences of Mr. Daugherty. The events of frontier life were vividly impressed upon his mind and were instrumental in a great degree in shaping his character. Mr. Daugherty met on the trail many of the great leaders of the cattle industry, and by following their advice he early gained a fortune, which has since been increased many fold.

Mr. Daugherty has ridden in a stage from Kansas City to San Antonio and from Lawrence, Kas., over the old Santa Fé trail, to Santa Fé. He was present at the barbecue when the Kansas City Stock Yards were opened, was one of the first members of the Texas Cattle Raisers' Association, and on two occasions served as delegate of that organization to the annual conventions of the National Live Stock Association. For years, in his early career, Mr. Daugherty lived in the midst of outlaws, and it was necessary to keep his eyes shut or quit the country. Many times he entertained desperate characters at his camp, and he would hear them say, "Daugherty is all right; he don't tell anything." To have talked would have been certain death. Self-reliant, instant in emergency, a dead shot, fearless, and with a reputation for attending to his own business, the young cowman lived unharmed in a region where others died. The type of which Mr. Daugherty is an example has almost disappeared. To the student of human nature it is one of the most interesting of all the types of the plains.

In years to come, as the country becomes settled and vast areas teem with population where once fed the great cattle herds of the plains, the student of the progress of civilization will stop with surprise when he reads of the achievements of men chronicled in this publication. He will receive new inspiration as he learns of their trials and their triumphs, and he will be impressed with the motto: "Nothing is impossible to him who wills to win and who allows no thought of defeat to find lodgment in his mind. For, after all, the mind is the greatest power in the universe."

Annihilation of the Buffalo Herds.

Indian Theory of the Production of Buffalos.—Sioux Myth of the Buffalos' Frightful "Grandfather."—Destruction of the Buffalos in the Country East of the Mississippi River.—Pioneer Hide Hunters.—Disappearance of the Buffalos from the Border on the Western Side of the Mississippi.—Their Extinction in the Far Southwest and West of the Continental Divide.—Beginning of Their Wasteful Slaughter in the West.—Operations of the American Fur Company.—A Buffalo Robe for a Pint of Whiskey.—Some of the Indian Practices in Killing Buffalos.—Skill of Indian Hunters.—Effects of Early Overplains Emigration.—Exigencies of Buffalo Life.—Indian Utilization of the Buffalo.—Conditions Previous to Our Civil War.—Railroad Invasion of the Plains.—Great Slaughter Along the Railroads.—Division of the Buffalo Host of the Plains.—Immense Herds of Buffalos Around 1870.—Wholesale Destruction of the Animals.—Methods of the Hide-Hunters.—Annihilation of the Herds.—Number of Living Buffalos, January, 1889.—Estimate of the Total Number Slaughtered.—Final Act of the Great Tragedy.

Among the many and mostly very absurd superstitions cherished by the plains Indians, there was one which, according to the following, related by William F. Cody, provided for a permanent and abundant supply of buffalos for the sustenance of the red people:

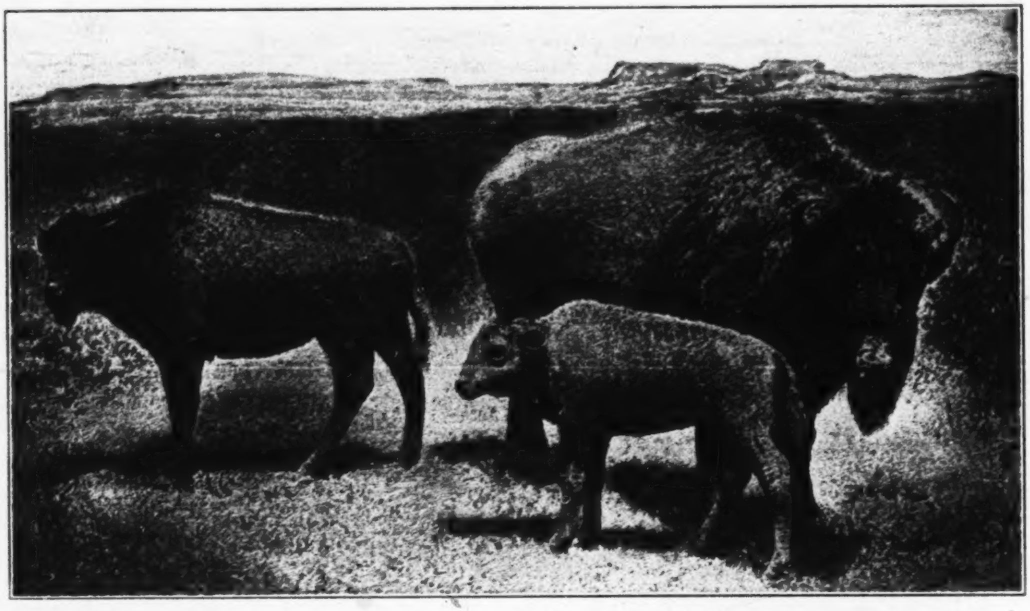
"Every plains Indian firmly believed that the buffalo were produced in countless numbers in a country under ground; and that every spring the surplus swarmed, like bees from a hive, out of immense cave-like openings in the region of the Llano Estacada, or Staked Plain, of Texas. In 1869 Stone Calf, a celebrated chief, assured me that he knew exactly where the caves were, though he had never seen them; that the good God had provided this means for the constant supply of food for the Indians, and that however recklessly the white men might slaughter, they could never exterminate them."

The Great Spirit always had been very solicitous for the welfare of the Indian people, and had given many proofs of great liking for them, and of an eager desire to help them, and to favor them more than all other beings upon the earth. Another instance of this deep concern was preserved in a myth that was very popular among the several Sioux tribes. A long time ago—all such things have happened "a long time ago"—there appeared at intervals an immense and frightful beast, "the buffalos' grandfather," that went thundering over the plains with such might and uproar that it sent terror to the hearts of the people and frightened all the game into hiding—scaring the wits out of even its own grandchildren. Its re-appearance always was anticipated with great dread, for no one knew what it might do next. The Great Spirit saw that this state of affairs was becoming intolerable to his people, and that if it were continued any longer the buffalos, which were then, as in later times, the main dependence of the Indians of the plains, might be so terrified by their monstrous ancestor that they would leave the country never to return. Therefore, upon the next appearance of the mighty and furious creature an awful thunder-bolt laid him low and ended his reckless career. From that time until the coming of the white men the Indians and the buffalos had very little trouble except such as they made among themselves.

However, if Stone Calf were above ground himself fifteen years later he had good reasons and many for realizing how grievously he had been mistaken in his judgment of the white men's ability as destroyers. But, aside from his belief in the unlimited production of buffalos by the creative power of the kindly Great Spirit, Stone Calf was not without some other apparently good reasons for confidence in the indefinite perpetuation of the animals; for even in his time it would have been about as easy to count or to estimate the number of leaves in a forest as to do the same thing with the hordes of buffalos then occupying the great plains in the West. Yet, within two decades thereafter, this uncountable host had been destroyed so nearly to the point of complete extermination that only a few little bands of the animals were left as representatives of the race in the entire territory of the United States.

The destruction of the buffalos in all that part of the United States that lies east of the Mississippi River, while it was not a slow process, is not to be compared with the terrific slaughter of the animals that came to pass in the Great West during the twenty years immediately after the close of our Civil War, and that in a riot of butchery exterminated them as roving wild creatures within the limits of the Union. The going out of the buffalos was one of the inevitable consequences of the westward movement from the Atlantic coast of settlers determined to occupy the country and in it to make homes for themselves and for their descendants. They and the wild animals could not dwell together for long, but the buffalos were the first to be destroyed. In the main, however, the pioneers of the eastern country killed the animals for food, and were justified in doing so to the last beast. During the early years of pioneer life most of the few domestic animals the settlers had brought with them were too valuable to be killed for food when wild ones could be had easily, and therefore the settlers turned to the forests and the prairies for their supplies of meat. By the time that game animals had become scarce those of the barnyard had multiplied and were supplying the needs for meat food, and hunting then became a pastime or "sport," instead of a necessity.

Being the largest of our native quadrupeds, the buffalo, from the time when white men first laid eyes on him, always has been a conspicuous prize; and, while his disappearance from the eastern parts of the United States was, as we have said, mainly due to the settlers who killed game animals for their subsistence, there were, even in very early times, some men among them who slaughtered buffalos for their hides alone—the ruthless forerunners of the hide-hunters of the plains a century later. Most of this pioneer killing-for-hides was done in the vicinity of salt springs, around which the buffalos congregated in great numbers and where they could be shot without the least difficulty. An Englishman, Thomas Ashe, published in London in 1808 his "Travels in America in 1806," in which he recorded some interesting facts bearing upon this slaughter. He tells of hearing of "an old man"



Buffalo Cow, Calf (four months old), and Yearling.
(From a mounted group in the United States National Museum at Washington.)

who, in the later part of the preceding century (the eighteenth), built a log house for himself "on the immediate borders of a salt spring," in western Pennsylvania, for the sole purpose of living in it while he killed buffalos out of the large droves that came to the spring. Of the operations of this man and of others, Ashe's account reads very much like things written in far more recent times:

"In the first and second years, this old man, with some companions, killed from six to seven hundred of these noble creatures merely for the sake of their skins, which to them were worth only two shillings each; and after this 'work of death' they were obliged to leave the place till the following season, or till the wolves, bears panthers, eagles, rooks, ravens, etc., had devoured the carcasses and abandoned the place for other prey. In the two following years the same persons killed great numbers out of the first droves that arrived, skinned them, and left their bodies exposed to the sun and air; but they soon had reason to repent of this, for the remaining droves, as they came up in succession, stopped, gazed on the mangled and putrid bodies, sorrowfully moaned or furiously lowed aloud, and returned instantly to the wilderness in an unusual run without tasting their favorite spring or licking the impregnated earth, which was also once their most agreeable occupation; nor did they nor any of their race ever revisit the neighborhood.

"The simple history of this spring is that of every other in the settled parts of this western world; the carnage of beasts was everywhere the same. I met with a man who had killed two thousand buffalos with his own hand, and others no doubt have done the same thing. In consequence of such proceedings not one buffalo is at this time to be found east of the Mississippi, except a few domesticated by the curious, or carried through the country on a public show."

Mr. Ashe's indignation led him astray in the statements made in the last paragraph, for there is no corroborant evidence that such slaughter as he describes was at all common; and at the time of his "travels in America" (1806) there was still a fair number of buffalos to be found east of the Mississippi, though they had disappeared from the Pennsylvania country some ten years before.

The buffalos vanished from the area of the present State of Virginia about the year 1730, and from that of Georgia, South Carolina and North Carolina about 1760. The last of those in western New York, western Pennsylvania, and in Ohio, disappeared about 1795, but some lingered in the mountainous parts of what is now the State of West Virginia until 1800. They continued to be found in Tennessee, Kentucky, and the Indiana country as late is 1810, and their disappearance from the Illinois area has been assigned to about that time; but the writer has encountered a statement, for the correctness of which he is not prepared to vouch, which says that "the last wild buffalo killed east of the Mississippi River was shot in Illinois in 1832." This is the year in which the last of them in Wisconsin is said to have been seen, and perhaps this alleged final victim in Illinois was a solitary fugitive from the tragic scene in Wisconsin in which the career of his race to the eastward of the great river was brought to its close. In a preceding part we have mentioned the Indian tradition that tells of the buffalos having migrated to the west from the country of the State of Mississippi early in the eighteenth century in consequence of a protracted drouth. The year 1720 is now assigned to their disappearance from the land of that State.

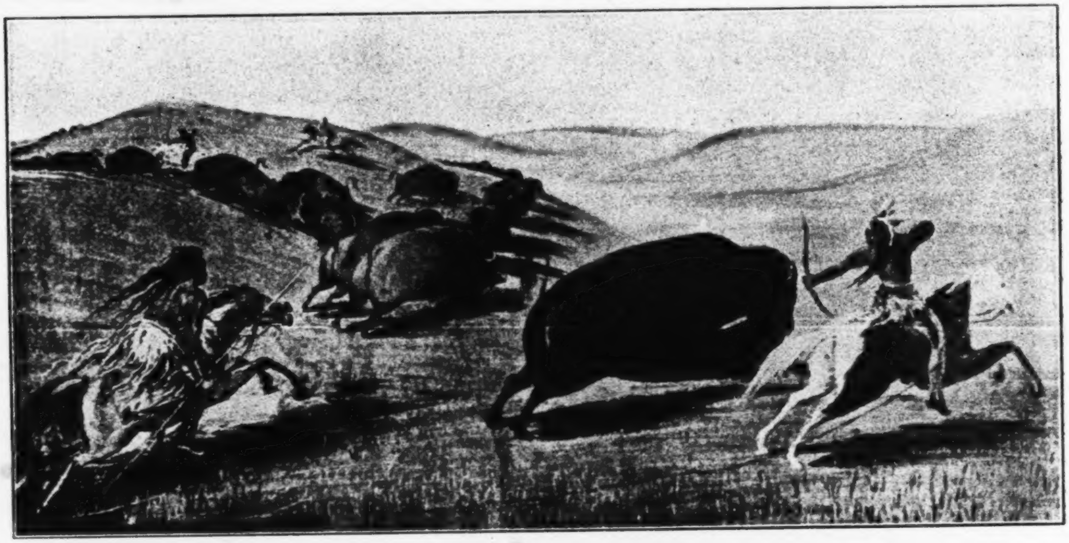
From the country that borders on the westward side of the Mississippi the buffalos vanished at a comparatively early time. Louisiana and Arkansas saw the last of theirs about the year 1820 and Missouri about five years afterward. The eastern half of Iowa was bare of them by 1830, but some lingered in the northwestern part of that State until 1869, at which time herds of them still occupied central-western and southwestern Minnesota; but from north-central and northern Minnesota they appear to have been cleared away some fifteen years earlier; a fate that had met their kind in the northeastern section of the present North Dakota as early as 1840. Their relatively early disappearance from that general region of country chiefly was due, as we shall see presently, to the operations of the "Red River half-breeds," who were among the pioneers who made buffalo killing a business in the Great West.

In far-southern Texas—that part between the Gulf and the Rio Grande for about 250 miles from its mouth, the buffalos had disappeared in 1828 and from the region east of and around Austin and thence down to the coast, in 1837, but in the country east and southeast from the locality of the present city of Fort Worth they were found as late as the middle '50's of that century. The eastern part of the Indian Territory lost them in the '30's, and by 1840, or thereabout, they had withdrawn from the eastern fourth of Kansas and from the Missouri River border of Nebraska.

As previously stated, the animals never were abundant west of the Continental Divide. As early as 1840 they had closed their career in western New Mexico, as well as along the Rio Grande in that Territory, and there is no trustworthy record of them having been seen in southwestern and central-western Colorado later than 1850. According to all accounts, they completely disappeared from Utah, Nevada, Oregon, and Idaho between 1838 and 1845.

The destruction of the buffalos east of the Mississippi had been, as we have said, an inevitable consequence of the permanent settlement of the country, and it had progressed neither slower nor faster than the settlements advanced. As heretofore mentioned, the animals were, in the main, hunted there for the meat and robes they yielded, the instances of men making a business of killing them for their hides being only very exceptional. The beginning of the organized, systematic, and persistent wasteful slaughter occurred in the West, or rather in the northwest, beyond the boundary of the United States, as early as 1820.

In that year the first organized buffalo-killing expedition on a grand scale, of which there is record, was made from the "Red River Settlement" in Manitoba, the people engaged in it consisting of a few whites, many half-breeds, and some Indians, who took with them 540 carts in which to bring back the spoil. Similar expeditions set out annually for years, ravaging the Manitoba country, and disregarding the international boundary line. An outfit that left Pembina on the Red River at the boundary in June, 1840, included 1,630 men, women, and children, nearly all being half-breeds, and had 1,210 carts, drawn by 655 horses and 586 oxen, and took along 542 dogs. The statement is made in Ross' "Red River Settlement" that this expedition killed 47,770 buffalos, or an average of 77 to each of the 620 "hunters" that were included in the company. These figures give us an idea of the magnitude of these early buffalo-killing enterprises in the North. Year by year these hunting parties had to go farther and farther, and by 1850

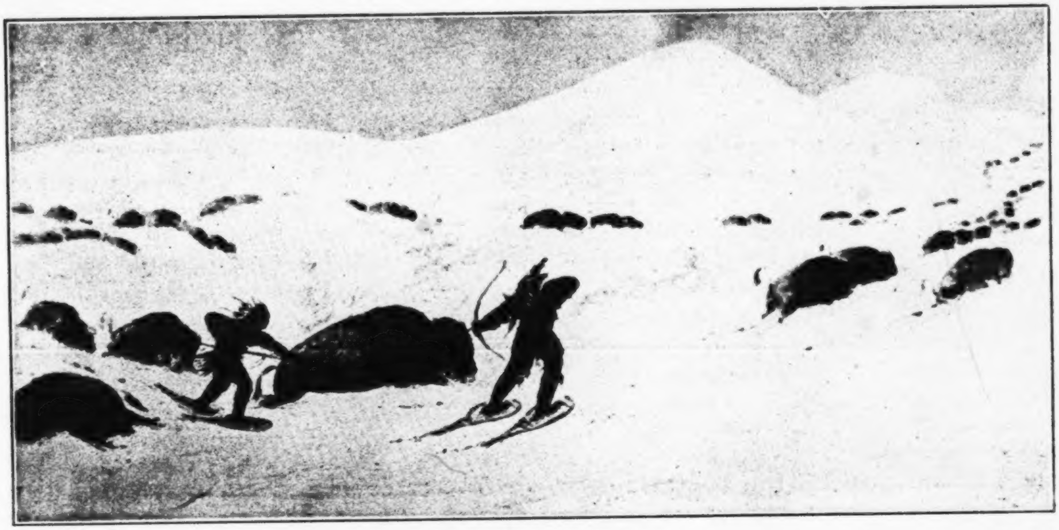


Indians Running Buffalos.
(From a painting by George Catlin in the United States National Museum at Washington.)

all of the buffalo country for about 200 miles westward from Winnipeg and south in the Red River valley, far into Dakota and Minnesota, had been practically cleared of the animals; and by the time of the outbreak of our Civil War this clearance in the Dominion had been extended west nearly to the 105th meridian. During that period of forty years it is probable that the total killing in the region of the country referred to above, including what was done by the Indian tribes, proper, averaged about 50,000 annually. In 1857 the Cree Indians, who inhabited the country around the headwaters of the Qu' Appelle River, assembled in council and "determined that in consequence of promises often made and broken by the white men and half-breeds, and the rapid destruction by these of the buffalo the Crees fed on, they would not permit either white men or half-breeds to hunt in their territory or to travel through it except for the purpose of trading for their dried meat, pemmican, skins, and robes."

Some of these earlier northern hunting parties saved, beside the hides for robes, much of the meat, tallow, and marrow; the meat being either dried ("jerked") or made into pemmican, in which form it was also preserved by the full-blood Indians. But as the killing increased, the abundance of meat and tallow made jerked buffalo and pemmican drugs on the market, and caused the greater part of the slaughtering to be done for the hides only.

Early in the nineteenth century the American Fur Company extended its operations into the plains region of our country, and by 1830 had established various trading-posts along the larger rivers as far west as the base of the Rocky Mountains—and even in the mountain fastnesses in a few places; but all of the important ones were in the buffalo country, where they would be easily accessible to the hunters, both white and red. All of the old fur-traders very early recognized the greater commercial value of buffalo robes cured and dressed as the Indians had learned to prepare them, and therefore the American Company, as well as the independent traders, gave every encouragement to the Indians—except fair pay in money or its equivalent—to kill buffalos for their hides, which were converted into "robes" entirely by squaw-labor. From the beginning of the fur-traders' operations in the West the bargains they drove with the Indians for robes were exceedingly good for themselves, but very hard for the red people. The trading yielded the Indians little of utility, for the standard commodity they received in



Indians on Snow-shoes Killing Buffalos.
(From a painting by George Catlin in the United States National Museum at Washington.)

exchange was a vile quality of alcohol in comparatively small quantity for each robe. Concerning this traffic, George Catlin, writing in 1832 at the confluence of the Teton and Missouri Rivers in Dakota, said:

"It seems hard and cruel (does it not?) that we civilized people, with all the luxuries and comforts of the world about us, should be drawing from the backs of these useful animals the skins for our luxury, leaving their carcasses to be devoured by the wolves; that we should draw from this country some one hundred and fifty, or two hundred, thousands of their robes annually, the greater part of which are taken from animals that are killed expressly for the robe at a season when the meat is not cured and preserved, and for each of which skins the Indian has received a pint of whisky! Such is the fact, and that number, or near it, are annually destroyed, in addition to the number that is necessarily killed for the subsistence of three hundred thousand Indians, who live chiefly upon them."

Of some of the circumstances connected with this robe trade James P. Beckwourth, a noted frontiersman of the fur-trading period, is on record as having said in 1860 at Denver:

"The traffic in whiskey for Indian property was one of the most infernal practices ever entered into by man. Let the most casual thinker sit down and figure up the profits on a forty-gallon cask of alcohol, and he will be thunderstruck, or rather whiskey-struck. When it was to be disposed of, four gallons of water were added to each gallon of alcohol. In 200 gallons there are 1,600 pints, and for each pint of this stuff the trader got a buffalo robe worth in gold on the spot at least five dollars. The Indian women toiled many long weeks to dress those 1,600 robes. The white traders got them for worse than nothing, and the poor Indian mother had to hide herself and her children until the effects of the poison had passed away from the husband and father. Eight thousand dollars' worth of robes in exchange for forty gallons of cheap alcohol! Is it a wonder with such profits that men got rich who were engaged in the fur trade? A dressed buffalo hide, among the Indians themselves, became commonly known by the appellation, 'a pint of whiskey.'"

In that period the robe-supply mostly came from the Indians, the majority of the white hunters and trappers preferring to give their attention to the fur-bearing animals. By 1840 these animals had become scarce, and the fur-trade proper was in decline, but the robe-trade continued in the old way for some fifteen years or more; the American Fur Company marketing during these years from 40,000 to 50,000 robes annually, the bales of them still forming important parts of the cargoes of the steamboats that plied the Missouri River. The robes were in great demand, as they long had been, in the eastern part of the United States north of the Ohio and Potomac Rivers, being sold by saddlers and harness-makers in every town of any importance in that part of the country for winter use in carriages and sleighs. The American operators also greatly enlarged the foreign markets for the robes, and many thousands were exported. The English army that served in the Crimean War was liberally supplied with them or with coats made from them.

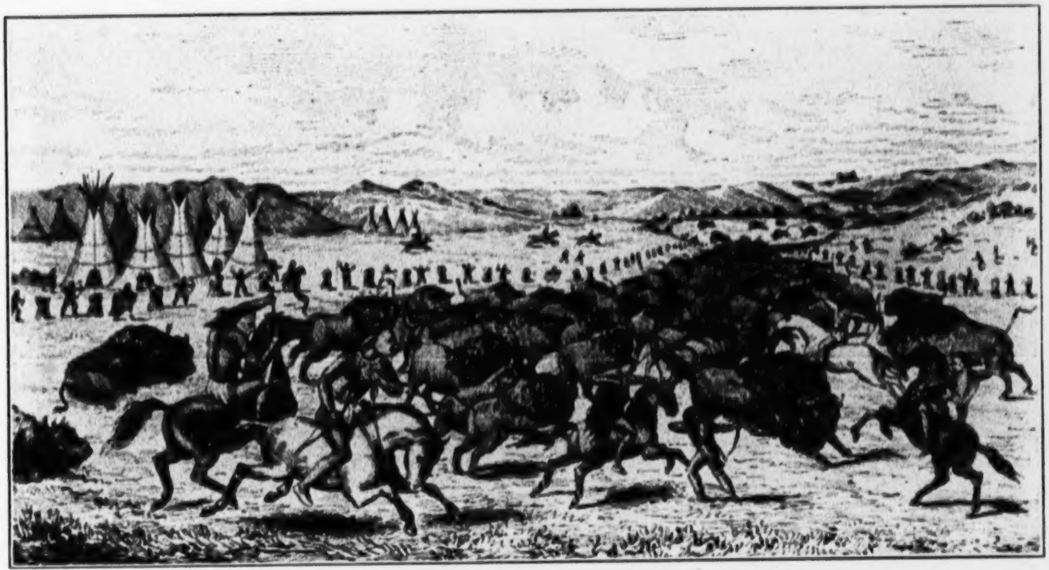
Indian practices in dealing with the plains buffalos were wantonly wasteful, and no doubt had been from an indefinite period in the past, but their ordinary modes of hunting before they acquired horses and guns would seem not to have been so destructive as after they had come into possession of these very effective assistants; nor could they have been so terrifying to the herds. However, from a period long before they had begun killing buffalos for trading purposes, but after they had acquired horses, certain of their practices destroyed the animals by hundreds at a time.

Sometimes this would be done by decoying and driving a sizable herd to and over a precipitous place, where many of the frightened creatures would be killed or disabled by the tumble—many times more than the band of Indians engaged in the affair possibly could use. This method of slaughtering by wholesale is described as follows by Lewis and Clarke, the locality indicated being on the Missouri River in Montana, just above the mouth of Judith River:

"On the north we passed a precipice about 120 feet high, under which lay scattered the fragments of at least one hundred carcases of buffaloes, although the water which had washed the lower part of the hill must have carried off many of the dead. These buffaloes had been chased down a precipice in a way very common on the Missouri, and by which herds are destroyed in a moment. The mode of hunting is to select one of the most active and fleet young men, who is disguised by a buffalo skin round his body; the skin of the head with the ears and horns being fastened on his own head in such a way as to deceive the buffaloes. Thus dressed, he fixes himself at a convenient distance between a herd of buffaloes and any of the river precipices, which sometimes extend for miles.

"His companions in the meantime get in the rear and on the sides of the herd, and at a given signal show themselves, and advance towards the buffaloes. They instantly take alarm, and finding the hunters beside them, they run toward the disguised Indian or decoy, who leads them on at full speed toward the river, when, suddenly securing himself in some crevice of the cliff which he had previously fixed on, the herd is left on the brink of the precipice; it is then in vain for the foremost to retreat or even to stop; they are pressed on by the hindmost rank, who, seeing no danger but from the hunters, goad on those before them till the whole are precipitated and the shore is strewed with their dead bodies. Sometimes in this perilous seduction the Indian is himself either trodden under foot by the rapid movements of the buffaloes, or, missing his footing in the cliff, is urged down the precipice by the falling herd. The Indians then select as much meat as they wish, and the rest is abandoned to the wolves, and creates a most dreadful stench."

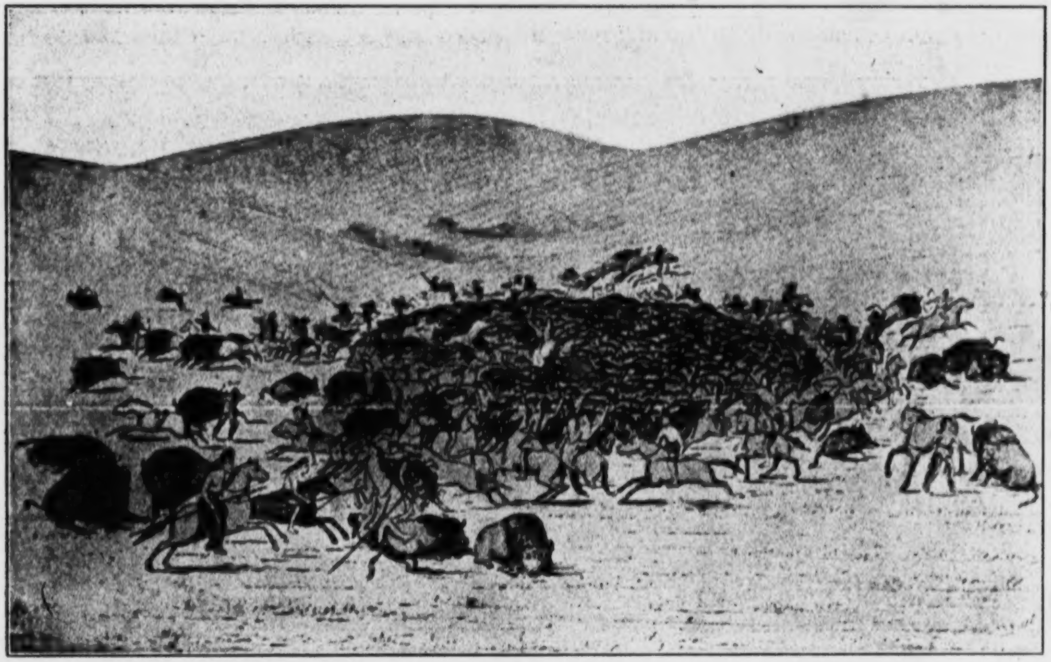
The Indians of the Saskatchewan region, and of some parts of Montana, where logs and brush were available, occasionally impounded the buffalos. A small plot of land was enclosed by a heavy circular fence made of trunks of trees, laced together with green withes, and braced on the outside by props. From the opening into this corral two expanding lines of shocks of brush extended until at their extremities they were from one and one-half to two miles apart, these lines serving to guide the buffalos into the pound with the assistance of Indians on foot stationed between the brush-shocks. These arrangements being completed, a large party of mounted Indians would sally forth, find a herd of buffalos, and with great uproar drive it toward the open arms of the trap. Once between these lines, the terrified beasts would be rushed forward and into the pound until the latter was jammed with



Cree Indians Impounding Buffalos.
(From Hind's "Red River, Assinniboine, and Saskatchewan Expedition.")

them, the surplus, if any, being allowed to escape. Quickly closing the entrance, the Indians then began the work of complete slaughter with their lances and arrows, and with guns if they had them. Professor H. Y. Hind, who witnessed such an impounding by Cree Indians on the headwaters of the Qu' Appelle River in 1858, thus describes the sight:

"A dreadful scene of confusion and slaughter then begins; the oldest and strongest animals crush and toss the weaker; the shouts and screams of the excited Indians rise above the roaring of the bulls, the bellowing of the cows, and the piteous moaning of the calves. The dying struggles of so many huge and powerful animals crowded together create a revolting and terrible scene, dreadful from the excess of its cruelty and waste of life, but with occasional displays of wonderful brute strength and rage; while man in his savage, untutored, and heathen state shows both in deed and expression how little he is superior to the noble beasts he so wantonly and cruelly destroys. * * * From old bulls to calves of three months' old, animals of every age were huddled together in all the forced attitudes of violent death. Some lay on their backs, with eyes staring from their heads and tongue thrust out through clotted gore. Others were impaled on the horns of old and strong bulls. Others again, which had been tossed, were lying with broken backs, two and three deep. One little calf hung suspended on the horns of a bull which had impaled it in the wild race round and round the pound. The Indians looked upon the dreadful and sickening sight with evident delight and told how such and such a bull or cow had exhibited feats of wonderful strength in the death struggle."



The "Surround."
(From a painting by George Catlin in the United States National Museum at Washington.)

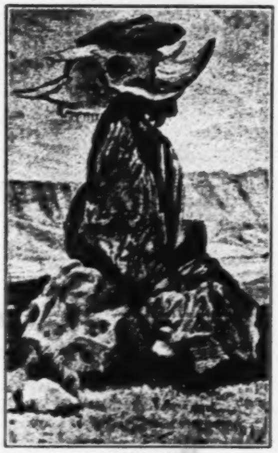
The "surround" was another very destructive method that could be followed anywhere on the plains, and was employed when opportunity offered by most of the plains tribes. This merely was the "rounding-up" of a comparatively small herd by a large party of mounted Indians, just as our range stockmen in later times "rounded-up" their herds of cattle. By circling around the buffalos the horsemen would press them into a compact circular bunch, and whenever an animal would break away an Indian would take after it and kill it. Sometimes from such a rounded-up herd not a single beast would be left alive, although the slaughter might afford above a hundred times more meat than the Indian party possibly would or could take away.

Still another, but less destructive method, but practiced only where the snow was deep, was hunting the buffalos on snow-shoes. In snow three or four feet deep, as it often was in many drifted places, the buffalos were almost helpless, and in their plungings were soon more or less exhausted. The Indian on his snow shoes then could approach close to them and kill them with arrow or lance with the greatest ease. As the winter's supply of meat was procured and dried in the summer and autumn, the flesh of nearly all buffalos killed by the Indians in winter was allowed to become a total loss, with the exception, perhaps, of the tongues and choice bits from the hump and loin. Usually the hides would be stripped off, if the weather were not too bitingly cold, but otherwise the wolves profited mostly by the snow-shoe killing.

Sometimes the Indians, under ordinary circumstances, killed large numbers of buffalos, from which they took away next to nothing. Of an example of such wantonness, George Catlin relates that a few days previous to his arrival at the mouth of the Teton River (Dakota) in 1832 an immense herd of buffalos had shown themselves on the opposite side of the river, whereupon a party of 500 or 600 Sioux Indians on horseback forded the river and attacked the herd. They re-crossed the river about sunset, and came into the fort with 1,400 fresh buffalo tongues, which were thrown down in a mass, and for which they asked "only a few gallons of whiskey," which was soon consumed in "a little harmless carouse." Catlin says that from all that he could learn not a hide nor a pound of meat other than the tongues was saved after this awful slaughter.

So long as the weapons of the Indians had consisted only of the bow and arrow and the lance, they were obliged to kill at close quarters with them or not at all. Therefore, in what we may call their "legitimate" hunting, they usually practiced what became commonly known as "running buffalo"; that is, chasing them on horseback. They carefully trained their ponies for this work, and the ill-kempt beasts became remarkably proficient in it, galloping without rein-guidance alongside a herd, or taking after a running individual and twisting and turning with him, until their riders had a chance to use arrow or lance with fatal effect. It sometimes happened that a hunter found himself surrounded by the fleeing herd and in a cloud of dust, so that neither man nor horse could see the ground before them. Under such circumstances fatal accidents to both man and horse were common. Even when fire-arms were first placed in the hands of the Indians they considered that it was still their best course to gallop alongside the herd on their trained "buffalo horses" and shoot at the shortest possible range. It took them a long time to become good marksmen, but their early guns were of poor quality, and they were unduly economical in the use of powder. "Running" buffalos was a general practice among the plains Indians; and the Red River half-breeds, who used guns almost exclusively, did nearly all of their buffalo-killing in that way. But there were many Indians who did not hesitate to leave their horses and attack a buffalo on foot with no weapons but the bow and arrow or the lance. Smoked Shield, a noted Kiowa chieftain, who was over seven feet in height, was said never to have mounted a horse when hunting buffalos, but ran among them afoot and killed them with a lance. The plains Indians generally were very proficient in the use of the bow and arrow; not particularly as marksmen, but in their ability to do effective work with them. The more powerful men among them could drive an arrow clear through the body of a full-grown buffalo bull. The Russian Grand Duke Alexis, who engaged in a buffalo hunt on the plains late in 1871, was incredulous when told of this, and to clear his mind of doubt a noted Kansas Indian named Two Lance easily gave him a practical demonstration.

The danger to the hunter on horseback in the midst of a herd of buffalos was not so much from the animals themselves, which rarely made an attempt under such circumstances to injure their enemy, as from the fact that neither man nor horse could see the ground, which might be rough or broken, or perforated with prairie "dog," or gopher, holes. If the horse stumbled and fell, or if he sunk a leg into one of the holes (with almost a certainty of breaking it), the fate of man and beast was sealed. Even when the buffalo-runner kept out of the herd these holes were a menace to him. Catlin said that to engage in running buffalo was "at the hazard of every bone in one's body, to feel the fine and thrilling exhilaration of the chase for a moment, and then as often to upbraid and blame himself for his folly and imprudence"; and many a man in aftertimes learned to his sorrow that all of this was strictly true, for in the later period, when the buffalos were mercilessly slaughtered to extermination by the white "hide hunters," many of these came to grief and a number lost their lives by such accidents.


"Buffalo Medicine."
(*From Smiley's "Outlines of the Earlier History of the Rocky Mountain Country."*)

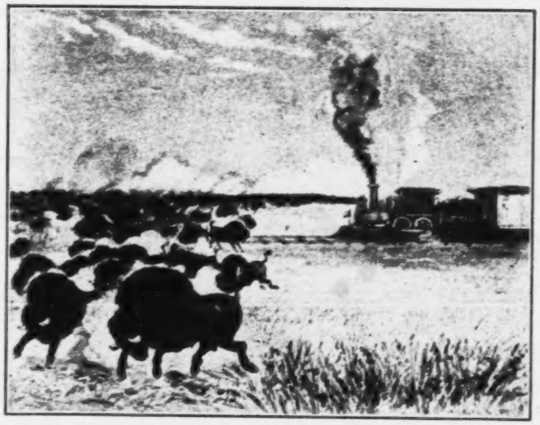
Among the plains Indians "making medicine" was applied to all sorts of purposes, and they believed the buffalos to be peculiarly susceptible to the charm of things assumed to have "medicine" character. A favorite form of "buffalo medicine" consisted of a rude pedestal of stones, built up three or four feet high, with two or three buffalo skulls placed on the top, but if stones were not available for the pedestal it would be made of bones or sticks of wood. In both learned and unlearned circles of Indian society this monumental type of "medicine" was held to possess great potency in influencing the animals to draw near and await the onslaughts of the Indian hunters. But, like many of the notions of white people, this was altogether more a theory than a fact.

It used to be said that the over-plains emigration to California that began in 1849 and continued heavy for several years, was very destructive to the buffalos. But this was not the case. The California movement was the first of any great magnitude, the previous emigration to Oregon having been comparatively small in numbers. Of course thousands of buffalos, in the aggregate, were killed by the host of people bound for California, some for needed food, and others wantonly; yet, all told, these losses were trifling to the enormous herds then roving the plains between the Rocky Mountains and the eastern parts of Kansas and Nebraska. It is true that it was the ambition of almost every wayfarer across the plains in those days, as it was in later times, to kill a buffalo in as early a stage of the journey as he could and to repeat the feat as often as he might, but these California Argonauts were on the move every day, and far more eager to hasten onward to their supposed-to-be-gold-laden destinations than to delay their progress by halting and turning aside for the sake of engaging in buffalo-hunting on a destructive scale. Myriads of buffalos, in their migratory movements, crossed the California trails forth and back, but those that pastured in the central plains region soon learned to keep away from the immediate vicinity of these routes of travel, though they might remain within a few miles. It is probable that there often was sufficient odor arising from these trails, even when no emigrant trains were to be seen, to warn the buffalos of the proximity of a danger-zone. It is said that some parties of California emigrants made the entire journey without having seen a single one of the millions of buffalos then in the plains country.

The "Pike's Peak Gold Excitement," ten years later, caused a greater disturbance to the buffalos of the central plains region. Settlements sprang up in the Pike's Peak country, regular lines of stages were established between them and the Missouri River, and trains of freight wagons continually passed to and fro. The swarms of gold-seekers "going to Pike's Peak" in 1859-60 followed various routes, several of which remained in constant use until superseded by railroads. While, as before, the migrating buffalos crossed and recrossed these trails, those that occupied the central region as a pasture-land kept still farther away from the established routes of travel; and therefore their losses along them were not very great, for there were but few among those who went back and forth who had time or opportunity to hunt and kill buffalos. Hundreds of travelers to and from the Pike's Peak country around 1860 crossed the plains without having seen a living buffalo.

Aside from the destruction caused by the plunging over a precipice of a stampeding herd that had no pursuers, there were frequent large other losses of life among the buffalos with which man had nothing to do—losses which, if not unavoidable, were very common, and that were due partly to their dullness of mind and partly to their habit of living and moving in large bodies. They often came to grief in quicksands, bogs, at river crossings where there was deep mud, and on ice too weak to bear their weight. In such places many thousands of them lost their lives. A herd moving in a dense mass, and coming upon a bog, a deep mud river-bank, or a bed of quicksand, would become involved in trouble through those in the lead being forced into the danger-place by pressure from those behind. These would crowd up and deliberately make their way into the treacherous place in which hundreds of their companions already were engulfed and in their death struggles. When mired in mud or stuck in a bog their heavy bodies caused them to sink deeper as they frantically attempted to free themselves. In the old buffalo days it was a common thing for voyagers on the Missouri River and travelers along the banks of other streams in the West to see buffalos hopelessly stuck in quicksands or mired in the mud along the shore, either dead or dying, and to find their dead bodies floating in the current, or lodged on the upper ends of the islands and sandbars. In the summer of 1867 over 2,000 buffalos out of a herd of about 4,000 lost their lives in one common calamity in the quicksands of the Platte River near Plum Creek while attempting to cross. One winter in an earlier period an entire herd broke through the ice of a lake (Lac-qui-Parle) in Minnesota, which they were attempting to cross, and were drowned. It was not often that any large number perished from actual starvation or were frozen to death. But occasionally at the end of a very severe winter thousands of them were in thin and weak condition; the old bulls, which suffered more from privation than any of the others, then being in an especially miserable plight. At such times, and also when the buffalos were floundering in the deep ice-covered snow, the wolves had riotous living, for then they could easily kill them.

The gray wolves were the only animals on the plains capable of making trouble for a buffalo, but usually these prowlers had to direct their attention to isolated individuals. Those disabled by accidents, the old and decrepit, and calves, detached from the herds, soon fell victims. If the members of a herd became scattered when a pack of wolves was in their vicinity some of them were likely to be sacrificed if they failed to bunch quickly; for even a full-grown bull in the prime of his vigor, if isolated from his fellows and surrounded by a pack of voracious wolves, would be worried to exhaustion and dragged down by assaults upon his flanks and rear. But under ordinary circumstances a herd of buffalos did not greatly fear the advances of these gentry, for they could defend themselves very effectively when in even small groups, as many a ripped-up wolf gave proof. If attacked in force, which



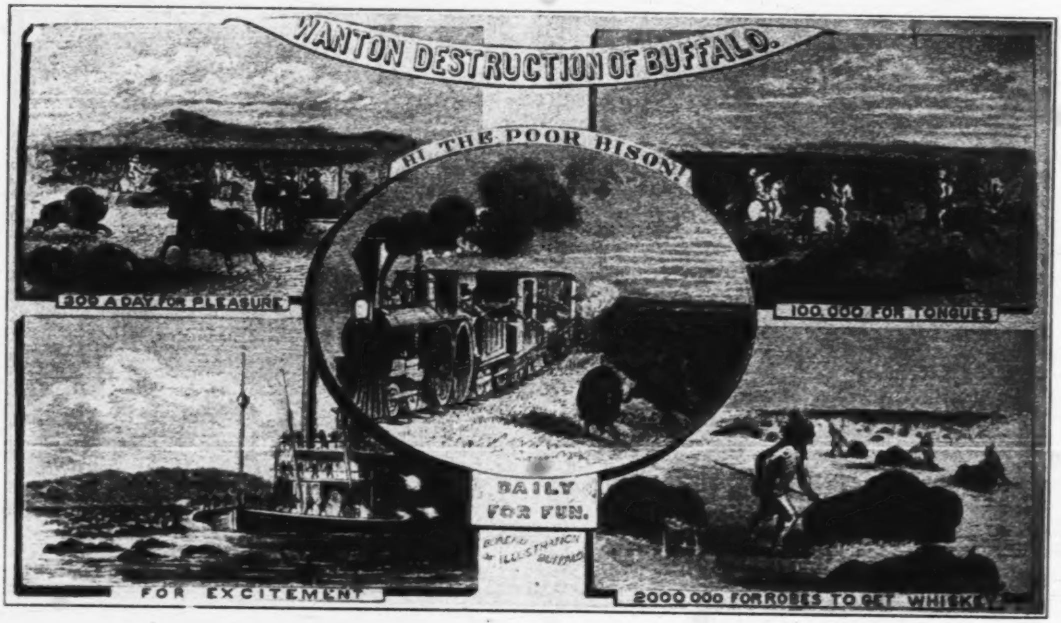
Buffalos Stopping a Train on the Union Pacific Railroad.
(*From Thayer's "Marvels of the New West."*)

sometimes happened, the buffalos usually would form compact bunches, with the calves and half-grown in the center, the cows being next to these, while the bulls formed the outer circle and faced the enemy with lowered heads and ready horns. The wolves held the calves in great esteem as good eating, and the bulls considered it their highest duty to protect them against the wolves in every way that they could.

At calving-time the cows preferred to retire to some secluded place, if possible a ravine well screened from observation, there to bring forth their young, but many calves were, from necessity, born on the open prairie. Early travelers over the plains observed and were mystified by many small circles trodden bare upon the ground, and before an alleged explanation of the cause of these was forthcoming they were called "fairy-rings." It was said by those who professed to know that at the time of reproduction out in the open the bulls kept guard over the cows against the wolves by walking in circles around them, and thus marked out the rings that had puzzled the early travelers, and which, according to this, were quite unfairy-like in their origin.

Aside from defending themselves against wolves, avoiding precipices, bogs, quicksands, and deep beds of snow, and keeping their tributes to the Indians as low as possible, the buffalos of the plains in the good old times before the appearance of white men on their ranges, had little to do but to multiply and so keep their herds replenished, which they did with praiseworthy diligence.

The Indians in their wild life utilized the buffalo to the fullest extent, and down to the time when our national Government began furnishing them supplies of nearly every sort, all of the roving Indians of the plains really were dependent upon these animals for their means of existence. From an unknown period it would seem to have been so. The body of the buffalo yielded fresh meat, of which thousands of tons were consumed; dried meats, prepared in summer for winter use; pemmican (among the far-northern tribes), also prepared in summer, of meat, fat, and berries; tallow, made up in large balls or sacks, and kept in store; marrow, preserved in bladders; and tongues, dried and smoked, and eaten as a delicacy. The skin af-



A Group of Eloquent Pictures.
(From Webb's "Buffalo Land.")

forded a robe, dressed with the hair on, for clothing and bedding; hides, dressed without the hair, sewn together, and supported by poles, made their teepees, as many as two dozen being used for the large ones; boats were made of "green" hides stretched over a wooden framework; and from rawhide, some garments, and shields, ropes, and bags, and winding-sheets for the dead, were made. The sinews afforded fiber for other ropes, and thread, bow-strings, snowshoe webs, and so forth. The dried droppings, "buffalo chips," made a valuable fuel. From the bones many articles of use and ornament were fashioned; and the horns were made into drinking vessels, spoons, and other domestic utensils, and also formed a striking and impressive part of the warrior's head-dress. So there was use for almost everything that constituted the body of the buffalo.

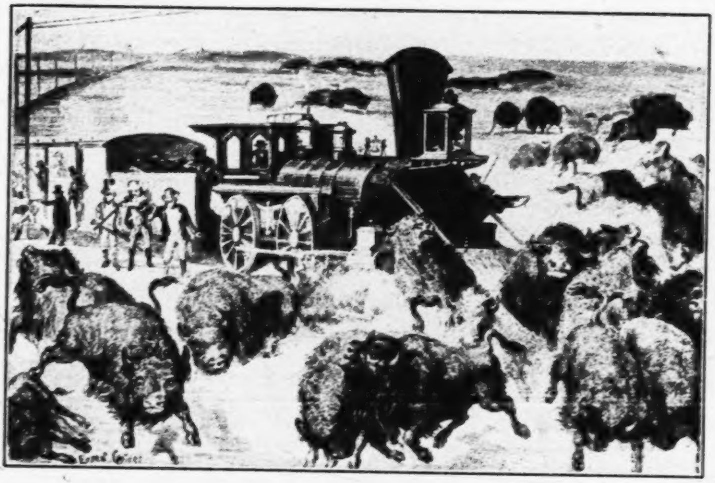
Notwithstanding the plains Indians' ofttimes wanton slaughter and wastefulness of their buffalo resources, it would seem that until the beginning of killing the animals for robes, their demands upon the herds of the plains had had no appreciable decimating effect. Killing for robes and the direct requirements of the Indians west of the Rocky Mountains combined, had, as we have said, wiped out the always rather sparse buffalo population in that part of the country by 1845; but the herds of the plains still numbered millions of these useful creatures. The operations of the robe-traders and the wastefulness of the Indians together, down to the outbreak of our Civil War, involved the death of myriads of the plains buffalos, but even this did not threaten anything like so swift an annihilation of these enormous herds as that which came to pass within a few years after that epoch in our national history; for it is to be remembered that, although the Indians in the later of these times had been killing many more cows than bulls, the reproductive power of the immense host of buffalos remained very great, and that where there were millions of adult animals of both sexes there were hundreds of thousands born every year.

Buffalo-killing for robes continued through the period of the Civil War about as it had been going on for years before, being almost entirely in the hands of the Indians, but the output was not so large in consequence of the warlike restlessness of most of the roving tribes that ranged within the domain of the United States. But immediately after the war, when settlers began pouring into the Great West, the human enemies of the buffalos received tremendous reinforcements.

The locomotive realized the mythical conception of the "immense and frightful beast" of the Sioux that went thundering over the plains with such might and uproar that it frightened all the game into hiding and scared the wits out of even its own grandchildren, the buffalos. The construction of the Union Pacific Railway, and of its "Eastern Division," that was better known as the Kansas Pacific, marked the beginning of the swift destruction of the buffalo herds of the plains. Forty miles of the Union Pacific were completed west from Omaha in 1865; 1866 saw the building of 265 miles more; in 1867, 245 miles more were added, which took it to Cheyenne, Wyoming; in 1868, 350 miles were built; and by the middle of the following year the entire transcontinental line was open to traffic. In the meantime the Kansas Pacific road had been pushing its way westward through Central Kansas, but at a slower gait that took it to Denver in 1870. These two roads cut through the heart of the buffalo country and brought into it thousands of men eager for a chance at the big, clumsy, and dull-witted animals.

The working forces that built these two roads across the plains consumed large quantities of buffalo beef, expert hunters having been employed by the contractors to provide it. William F. Cody, otherwise "Buffalo Bill," is said to have killed nearly 5,000 buffalos within eighteen months while employed as a hunter by the construction company that built the Kansas Pacific; earning his well-known cognomen by this achievement. In that period, as well as in earlier times, most of the meat consumed at the frontier military posts was of the buffalo; each so-called "fort" having a hunter or two regularly employed under contract to supply the place with buffalo beef. Between 1865 and 1870 thousands of settlers along the frontier lines in Nebraska, Kansas, and Texas, as well as people from New Mexico and Colorado, and Indians from the mountains, invaded the buffalo country to get their winter's supply of meat, taking back with them the heaviest loads of it that they could transport. As early as 1869 buffalos had become scarce in most sections along the lines of the Union Pacific and Kansas Pacific roads, partly because of the great number that had been killed and partly because they had already learned that these iron trails meant danger and sudden death.

Passengers on the trains of these railroads, from the time the first one entered the buffalo country, in savage heartlessness had engaged in shooting the animals from the car-windows as the trains moved slowly past herds that were near the roads, or were surrounded by buffalos migrating to a new feeding-ground. Sometimes the trains would be stopped to afford the passengers "a little sport." Many thousands were killed in this manner and many other thousands were mortally wounded and wandered to a lingering death. In those days, on both sides of the two roads, the most conspicuous objects on the landscapes adjacent to their tracks all the way across the buffalo range, were the carcases and the skeletons of the buffalos that thus had been wantonly slaughtered by excited passengers. When later railroads entered other parts of the buffalo country similar savage slaughtering and similar scenes occurred along their rights of way.



A Santa Fé Train in Collision with Buffalos
(From Dodge's "Plains of the Great West.")

During several years after the Union Pacific and Kansas Pacific roads had penetrated buffalo land their trains were obstructed and sometimes stopped by moving herds of buffalos. In one instance, "In the autumn of 1868, whilst crossing the plains on the Kansas Pacific Railroad, for a distance of upwards of 120 miles, between Ellsworth and Sheridan, we passed through an almost unbroken herd of buffalo. The plains were blackened with them, and more than once the train had to stop to allow an unusually large herd to pass." In another, on the Union Pacific, "the standing train caused the immense approaching herd to divide, one part crossing the track in front of us and the other behind. It was a hot midsummer day [in 1868], and the train became enveloped in a dense cloud of dust that caused extreme discomfort to the passengers during the three hours occupied by the divided herd in passing."

But every herd was not so accommodating as to split for the sake of a railroad train, and collisions and derailments were known to happen. Of such affairs, Colonel R. I. Dodge, in his "Plains of the Great West," says:

"The Atchison, Topeka & Santa Fé Railroad was then [1871–72] in process of construction, and nowhere could the peculiarity of the buffalo, of which I am speaking, be better studied than from its trains. If a herd was on the north side of the track it would stand stupidly gazing, and without a symptom of alarm, although the locomotive passed within a hundred yards. If on the south side of the track, even though at a distance of one or two miles from it, the passage of a train set the whole herd in the wildest commotion. At full speed, and utterly regardless of the consequences, it would made for the track on its line of retreat. If the train happened not to be in its path, it crossed the track and stopped satisfied. If the train was in its way, each individual buffalo went at it with the desperation of despair, plunging against or between locomotive and cars, just as its blind madness chanced to direct it. Numbers were killed, but numbers still pressed on, to stop and stare as soon as the obstacle had been passed. After having trains thrown off the track twice in one week, conductors learned to have a very decided respect for the idiosyncrasies of the buffalo, and when there was a possibility of striking a herd 'on the rampage' for the north side of the track, the train was slowed up and sometimes stopped entirely."

In 1870 the presence of the Union Pacific road (which did the bulk of the over-plains business) practically had divided the buffalo host into two great bodies, which became roughly defined as the "northern herd" and the "southern herd," respectively. Both withdrew rapidly and almost permanently from the vicinity of that road, leaving a strip of country about fifty miles wide unfrequented by them, thus retiring beyond easy striking distance from that line. This east-and-west division had been foreshadowed in the influence upon the animals of the old California emigration, and of the later much-traveled trails to the settlements in the Pike's Peak country; and while there were occasional hurried migrations across the Union Pacific's track by small herds, the old movements to and from the north in mass had been ended forever.

After the close of the Civil War the demand for robes had moderated, and until about the end of that decade nearly all of the killing especially for them had continued to be done by the Indians, and during those years it is probable that they did not dispose of more than 100,000 annually. The killing by white people between 1865 and 1870 had been much greater—partly for meat, but mostly in "sport" and other forms of wantonness. The Indians' slaughter for robes and for their more direct uses, added to that of the whites through all motives, probably aggregated in each of those years, taking the entire buffalo field within the United States, something like 500,000 head. But notwithstanding this merciless war and the various encroachments that had been made upon the range country, it is probable that there still were seven or eight millions of buffalos on the Great Plains in the summer of 1870. Of the magnitude of some of the herds existing about that time, Inman, in his history of "The Old Santa Fé Trail," says:

"In the autumn of 1868 I rode with Generals Sheridan, Custer, Sully, and others for three consecutive days through one continuous herd, which must have contained millions. In the spring of 1869 a train on the Kansas Pacific Railroad was delayed at a point between Forts Harker and Hays from 9 o'clock in the morning until 5 in the afternoon in consequence of the passage of an immense herd of buffalo across the track. On each side of us, and to the west as far as we could see, our vision was only limited by the extended horizon of the flat prairie, and the whole vast area was black with the surging mass of affrighted buffalos."

Five Minutes' Deadly Work.
(From a Report of the Smithsonian Institution.)

Of a body of buffalos in southwestern Kansas in the spring of 1871, that equaled if it did not exceed in size either of those mentioned by Inman, Colonel Dodge presents this vivid picture in his "Plains of the Great West":

"In May, 1871, I drove in a light wagon from old Fort Zara to Fort Larned on the Arkansas, thirty-four miles. At least twenty-five miles of this distance was through one immense herd, composed of countless smaller herds of buffalo then on their journey north. The road ran along the broad level 'bottom' or valley of the river. * * * "

"The whole country appeared one great mass of buffalo, moving slowly to the northward; and it was only when actually among them that it could be ascertained that the apparently solid mass was an agglomeration of innumerable small herds, of from 50 to 200 animals, separated from the surrounding herds by greater or less space, but still separated. The herds in the valley sullenly got out of my way, and, turning, stared stupidly at me, sometimes at only a few yards' distance. When I had reached a point where the hills were no longer more than a mile from the road, the buffalo on the hills, seeing an unusual object in their rear, turned, stared an instant, then started at full speed directly towards me, stampeding and bringing with them the numberless herds through which they passed, and pouring down upon me all the herds, no longer separated, but one immense compact mass of plunging animals, mad with fright, and as irresistible as an avalanche."

"The situation was by no means pleasant. Reigning up my horse (which was fortunately a quiet old beast that had been in at the death of many a buffalo, * * *), I waited till the front of the mass was within fifty yards, when a few well-directed shots from my rifle split the herd, and sent it pouring off in two streams to my right and left. * * * "

Colonel Dodge later said that this herd "was, from my own observation, not less than twenty-five miles wide, and from reports of hunters and others it was about five days in passing a given point, or not less than fifty miles deep. From the top of Pawnee Rock I could see from six to ten miles in almost every direction. This whole vast space was covered with buffalo, looking at a distance like one compact mass, the visual angle not permitting the ground to be seen." The most conservative estimate of the number of animals in this aggregation (which was the main part of the "southern herd"), was 4,000,000 head, which was more likely to have been too small than too great.

Within a few years thereafter these and all the other multitudes of buffalos had been swept from the face of the earth.

The wholesale butchery that worked this awful destruction of animal life had begun in 1870, when many of the men who were swarming into the West, as well as many of those who had gone there before, suddenly took up with the proposition that there was "big money in buffalo hides"—not robes only, but "green" hides for the tanners, too. At that time a fresh demand for robes was making itself felt, and these people had argued that they could feed this demand by their work during the months in which the hides were in proper condition for robes, and then kill for the tanners all the rest of the year. So the red-handed "hide-hunter" came upon the scene with new ways and new means of destruction, and from that time the plains swarmed with these butchers until there were no longer enough buffalos left to make it worth while. "Everybody" rushed to the plains to kill buffalos for their hides, and the animals went down by the thousands every day in the week.

While many of these people went into the country along the northward side of the Union Pacific Railway and attacked the southerly band of the "northern herd," the general assault in the early 70's was made upon the "southern herd," which was most savagely assailed. At that time the geographical center of the range of the "southern" buffalos was about the middle of the "No Man's Land" strip between the north line of the Texas Panhandle and parts of Kansas and Colorado, which is now included in Oklahoma. Toward the east thousands of buffalos ranged nearly as far as Wichita, Kansas; which town, then a mere hamlet, soon became the headquarters of a great number of hide-hunters, many of whom surreptitiously "worked" to the southward into the forbidden land of the present Oklahoma. But in other parts of Kansas the herds were farther to the west and thence northward into southern Nebraska to within twenty-five or thirty miles of the Union Pacific Railway. The mob of hunters coming down from the line of that road very soon drove them back farther and farther south. In the West, not considering the small number in the mountain "parks" east of the Divide, they were ranging to within a few miles of the longitude of Pueblo, Colorado; but somewhat farther than that in southern New Mexico. The southern limit there and in Texas was about on a line with the southern boundary of New Mexico and extended eastward to within about seventy-five miles of the longitude of the present city of Fort Worth. These are mere rough outlines of the limits of their range at that time, for in many places it varied one way or the other. But railway construction was cutting into this range in several places and obstructing the movements of the buffalos and also bringing in hordes of hunters.

Men poured in from all parts of the Union, and soon began "operating" in companies of from three or four up to a dozen or fifteen individuals. The larger of these were systematically organized—some did the shooting, others the skinning, still others drove the wagons and picked up the hides, while the rest attended to the various duties of the camp. Merchants and speculators all along the eastern border of the range "grub-staked" small parties and sent them out to join in the bloody scramble for buffalo hides, while hundreds of men who could not thus be trusted managed to get possession of a wagon and team, scraped together a makeshift camp outfit, and by hook or crook got a gun and some ammunition, and turned themselves loose in pairs upon their own responsibility. By this motley assemblage of pitiless butchers, this army organized under "Captains of Slaughter" to make war on helpless wild creatures, the herds of buffalos were beset and shot down in a riot of rapacity and heartlessness. Nothing like it ever before was known in the history of mankind.

Hide-Hunters Skinning a Buffalo.
(From a Report of the Smithsonian Institution.)

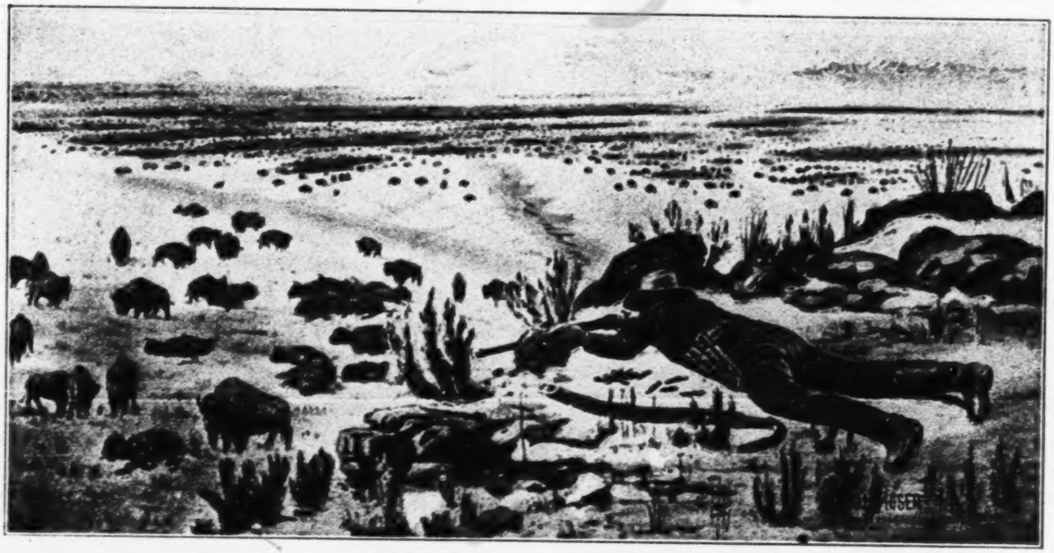
The killing was done in every possible manner—on horseback, afoot, by "still hunting," and by lying in wait day and night at the buffalos' drinking-places. Cordons of camps were established along the running streams, and when the thirsty animals came to drink the volleys would drive the famishing survivors away to try again at some other and equally deadly place; and this was kept up until these bunches of famished beasts were obliterated. The banks of the streams became littered with putrescent carcases and with the skeletons of the victims. There was a camp within gunshot of every watering-hole, and here, as along the streams, the tormented creatures were slain as they drew near. Long-range heavy breech-loading rifles were the favorite weapons, but those who went on horseback also were armed with big revolvers. These men, like the Indians, trained their horses for the hunt, and many of them soon had their mounts educated to the business in a degree of intelligence and skill that compared favorably to the best of the Indian "buffalo ponies."

In this work of destruction the hide-hunters had the coöperation of hundreds of so-called "sportsmen," who came from all parts of the United States, from England, and from other foreign lands. Most of these men killed wantonly—from the mere savage love of it, leaving the carcases of their victims to be skinned by the hide-hunters if there were any near, but otherwise to decay as they had fallen. "In the fall of that year" [1872], says Colonel Dodge, "three English gentlemen went out with me for a short hunt, and in their excitement bagged more buffalo than would have supplied a brigade." Within a few years after 1870 this sort of "sport" had become about as thrilling and sportsmanlike as shooting barnyard cows, the bedeviled buffalos having become bewildered and spiritless under their afflictions.

The first shipment of buffalo hides, in this wholesale slaughter-period, to the East for tanning purposes appears to have been made in 1870, and the consignment sold for fourteen cents a pound, or about $3.50 for each hide. But soon it was discovered by the tanners that buffalo hides made an inferior quality of leather in spite of all that they could do by careful treatment. Therefore, this inferiority, in combination with the high freight charges and the enormous supply, in 1871 forced the price of buffalo hides for tanning purposes down to an average of about $1.00 at most of the initial shipping points; but at some of the farther western stations the price sank to 75 or 80 cents. In 1872 they were still lower, for "a sudden drop in the price of hides brought them down as low as 25 and 50 cents each" in that year, as far east as Wichita, Kansas; prices that made the "margin of profit" a very narrow one for the "killers." After that year the prices advanced, but it is doubtful if the average net returns to the hide-hunters throughout the '70's was above $1.00 for each hide marketed to the tanners.

There was a steady demand for robes at relatively better prices, but as the buffalos' coats were in really good condition for robe purposes only in the months of November, December, and January, when the hair was thick and curly and firmly set in the skin, and as the slaughter went on the year 'round, the great bulk of the hides that were shipped out of the country went to the tanners.

Colonel Dodge declares in his "Plains of the Great West" that, though hundreds of thousands of skins were sent to market in 1871-72, they scarcely indicated the extent of the wanton waste that was going on. Through lack of skill in shooting and want of knowledge in preserving the hides by ignorant hunters, each hide sent to market in 1871 represented three, four, or even five dead buffalos, because the skinners and curers knew so little of the proper mode of caring for the hides. In the summer and autum of 1872 one hide sent to market represented at least three dead buffalos. By 1873 the conditions had somewhat improved through better organization of the hunting parties and knowledge gained by experience in curing. But for all of that, the hides of not one-half of the buffalos that were killed ever reached a market. It is doubtful whether, taking the entire 'slaughter period' from beginning to end in the southern field, the ratio of marketed hides to animals killed was more than two out of five. Yet the records of the Atchison, Topeka & Santa Fé Railroad show that that road alone transported during the years 1872, 1873, and 1874, 459,453 buffalo hides out of southwestern Kansas; while the Kansas Pacific and Union Pacific roads were doing an equal, if not a larger amount of business in the same kind of freight, and several shorter lines that had reached the border of the field were getting their share. After Dodge City, Kansas, became a shipping point, serving a large area of



The Still-Hunter at Work.
(From a painting by J. H. Moser in the United States National Museum at Washington.)

country, it is said that the number of hides forwarded from that place to the East averaged above 1,500 daily for about two years.

Some of the hunters among those who were "operating" within easy distance of railroad stations added to their returns from their "killings" by shipping in the winter season buffalo beef and tongues to the markets of the border towns and to those of larger places farther east. But the killing went on all the time, and most of it too far away from railroad shipping stations to warrant the great majority of the hunters in attempting at any time to take any part of the carcases other than the hides. The flesh of the buffalo so closely resembled ordinary domestic beef of the same sex, age, and quality that in the estimation of most persons it was equally good, the slight difference being very hard to distinguish. The flesh of a young cow, especially that of the loin and hump, was juicy, tender, and of very fine flavor, but that of a mature bull was comparable to that of the domestic bull, and, like that of the latter, became "stringier," tougher, and more uneatable with advancing years. But the amount of buffalo beef marketed during the slaughter-period, from the northern country as well as from the southern, was insignificant. So long as it was to be had at all it sold in the near-by markets at from 1 to 3 cents a pound, the higher prices farther away being due to middlemen's profits and freight charges. As many obvious other reasons combined to render the trade in buffalo beef unprofitable, it is probable that not more than one-thousandth—one pound out of a thousand—of the flesh of all the buffalos killed in the hide-hunting period was saved and sent to market. The buffalo carcases that were wasted on the Great Plains in every year while the slaughter was in its riotous stages probably would have fed to satiety during the entire time more than a million people.

The tongues of the buffalos received more attention from the hunters than the beef proper, and from the bodies of myriads of the animals these were the only parts that were saved. Until people got tired of them, buffalo tongues were in considerable demand, and thousands of barrels of them in the aggregate were collected along the plains railroads and shipped East, but it was not known that anybody made any great amount of money out of them.

By 1875 a tremendous destruction had been wrought among the buffalos on the southern range—that is, the plains country south of the Union Pacific Railway. Immense areas that had swarmed with them several years before now had not a single bunch upon them. Indeed, they had been practically exterminated down nearly to the southern boundary of Kansas, but farther south there were still enough left to make it worth while for many hunting "outfits" to continue at the bloody work some years longer. An estimate of the number of buffalos that had been slain on the southern range—and a conservative one at that—during the years 1872, 1873, and 1874, when the organized outfits were "down to business," after a year or two of training and "learning the ropes," was as follows:

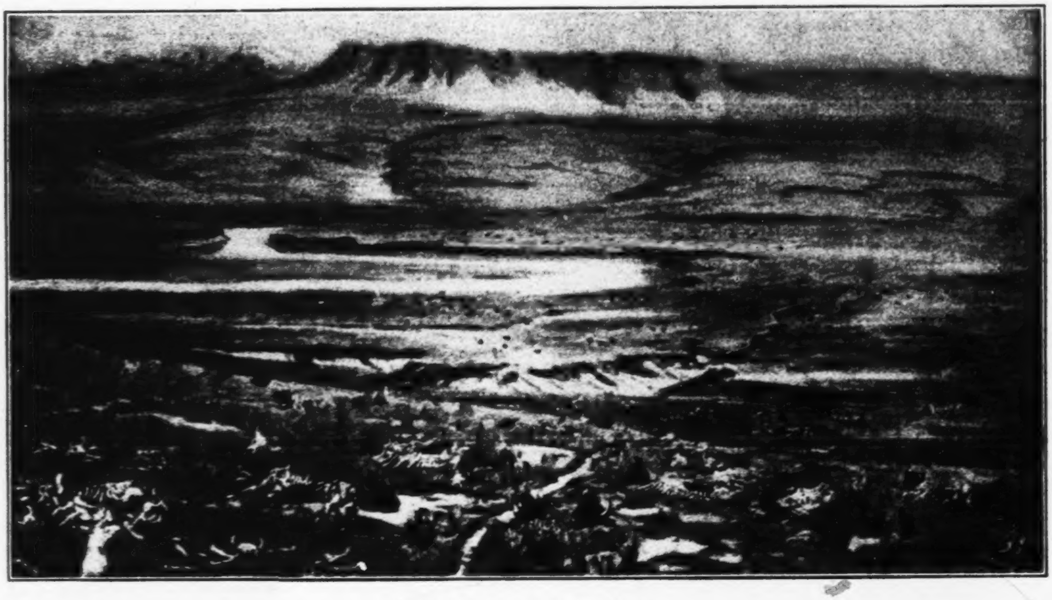
Killed by "professional" white hunters.......	3,160,000
Killed by plains Indians....................	390,000
Killed by settlers and mountain Indians......	150,000
Total	3,700,000

These figures may appear incredible, but unfortunately there is not the slightest reason for believing they are too high. With thousands of hunters on the range, and such possibilities of slaughter before each, it is, after all, no wonder that an average of nearly a million and a quarter of buffalos fell each year on the southern range during that destructive period. Beside this, the ravages upon the northern range already had reached a considerable magnitude.

Even in the last half of the decade of the '70's some extraordinary "killings" were done far in the south among what was left of the "southern herd." We have an example of this in the "record" made by the Causey & West outfit, which, in the winter season of 1876–77 "operated" around Yellow House Cañon, about six miles east of the present town of Lubbock, Texas; its hunting-ground, according to the "record," "covered a scope of country about forty miles square." There were eleven men in this outfit: a cook, a meat-tender, eight skinners, "and the hunter—Causey himself," who, we are assured, "was a very considerate man." The account of this outfit's "operations" during that winter season says that it killed and skinned 7,500 buffalos, which, it is asserted, "was the record for Texas." Such hunters literally exterminated small herds by hanging on to them from day to day until the last beast was killed.

The most heartless and deadly of all methods of buffalo slaughter was the "still hunt," and judging from all accounts it was less exciting and less dangerous than it would be to go out and shoot range cattle. An experienced still-hunter, with a long-range breech-loader, who knew how to "make a sneak" and "get a stand on a bunch," often succeeded in killing from one to two thousand in one winter season. There is a record of a Kansas hunter, who thus killed by contract 1,142 buffalos in six weeks. In the Montana country one man killed 107 buffalos in about an hour in one stand, without shifting his point of attack, in the winter of 1881–82, and declared that he killed during that season "about five thousand"; another killed eighty-five at one "stand," and still another seventy-five.

After locating a bunch, the hunter got to its leeward and approached it according to the character of the ground, sometimes crawling a half-mile or more. Having secured a position within from 100 to 250 yards of the herd, he fixed a good "rest" for his huge rifle, kept his person completely hidden from view, and began. If the herd were moving, the animal in the lead was the first to be shot; if at rest, the oldest cow, always supposed to be the leader, would be the first. Startled by the noise, the buffalos would stare at the little cloud of white smoke, feel inclined to run, but seeing their leader hesitate would wait for her to make the start. She, shot through the lungs, with blood gushing from her nostrils, gives a violent start forward, suddenly stops, tries to keep her feet, but lurches over and falls. Others of the herd come around her and stare and sniff in wide-eyed stupid wonder, and one of the more wary starts to lead the herd away. Another crack of the rifle, and she goes down. Her fall only increases the bewilderment of the survivors over proceedings which to them are strange and unaccountable, for they can neither see nor smell their cause. They may cluster around the fallen ones, sniff at the warm blood, bawl and moan in wonderment, and do everything but run away. This was "still-


The Wav the Millions Went.
(*From a painting by J. H. Moser in the United States National Museum at Washington.*)

hunting" the buffalo, and if the wind did not shift, or something come into view or smell to alarm them, the whole bunch of animals might be killed, or at least the hunter might keep on shooting until he became weary of the work.

By the end of the 70's the "southern herd" practically had been exterminated, and the "professional" hunters had begun their attacks in force upon the buffalos of the northern country. A few vagrant small bands lingered in secluded places in northern Texas, but hide hunting as a business had ceased forever throughout the southern range. The pitiable remnants that were left relentlessly were hunted down until not one remained alive. So far as can be ascertained, the last buffalo hunt from purely mercenary motives in the southern country—one for obtaining some robes and mountable skins—occurred late in 1877 about one hundred miles north of Tascosa, Texas, in which two parties were engaged. These found a bunch of about about two hundred buffalos, the largest group then left in that country, and killed fifty-two, ten skins of which were preserved for mounting. Of the remaining forty-two, the heads were cut off and preserved for mounting and the skins were prepared as robes. The mountable skins finally were sold at the prices following: Of young cows, $50.00 to $60.00; adult cows, $75.00 to $100; adult bulls, $150. The unmounted heads of young bulls sold at $25.00 to $30.00 of adult bulls, $50.00; young cows, $10.00 to $12.00; adult cows, $15.00 to $25.00. A few of the better robes sold at $20.00 each, and the remainder, a lot of twenty-eight, of good quality, were bought by the Hudson Bay Fur Company for $350.

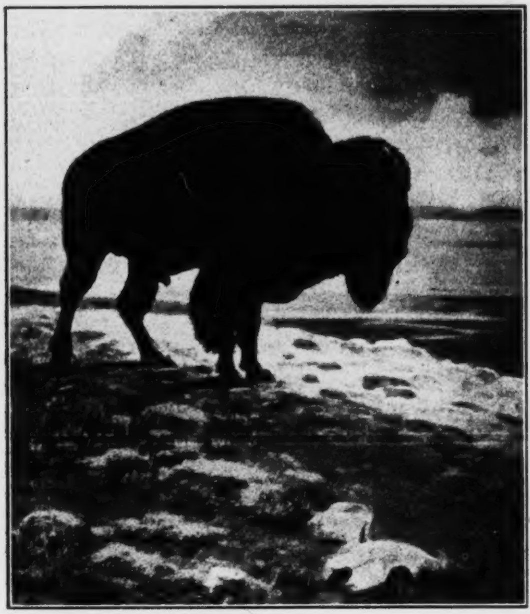
The survivors of this bunch, as well as the individuals of the one or two other remnant bands in that country, soon were captured or killed. So that by 1890 there was not a single wild buffalo left in all of the vast country between the line of the Union Pacific Railway and the Rio Grande.

The "northern herd" was annihilated in a shorter period of time. After the great body of buffalos had been divided by the effects of the operation of the Union Pacific Railway, the northern host ranged from the valley of the Platte River northward to the southern shore of the Great Slave Lake and eastward about to Minnesota and westward to an elevation of about 8,000 feet in the Rocky Mountains. Until the building of the Northern Pacific Railway there were but two noteworthy outlets for the buffalo robes that were taken annually in the northwestern Territories of the United States. The principal one was the Missouri River, the Yellowstone being the other, down which streams the hides were transported by steamboats to the nearest railway shipping point. As heretofore mentioned, the "northern herd" had been attacked by the hide-hunters in the southern borders of its range in the vicinity of the Union Pacific Railway at the time when the savage onslaught on the "southern herd" was begun, but red-handed hide-hunting in the North did not become general until about 1880. Before that time the "southern herd" had been so frightfully depleted that many of its destroyers either had gone north or were preparing to do so. The old robe-hunting had continued in the North, and the Indians had been joined in the work by a considerable number of white men.

With the construction of the Northern Pacific Railroad west of the Missouri River there was a rush of hide-hunters into the northern country. This road had been stopped at Bismarck, North Dakota, by the panic of 1873, by which time about all of the buffalos in the Dakota country east of Bismarck had been wiped out. Construction of the Northern Pacific was resumed in the spring of 1879. The road was opened for business to the crossing of the Little Missouri River in the fall of 1880 to Niles City and on to Billings in 1882 and through to the coast in the fall of 1883.

By 1880 buffalo killing had taken on rather large proportions in eastern Montana, if we may judge of it by the following extract from an issue of the Sioux City (Iowa) *Journal* in May, 1881:

"Most of our citizens saw the big load of buffalo hides that the *C. K. Peck* brought down last season, a load that hid everything about the boat below the roof of the hurricane deck. There were ten thousand hides in that load, and they were all brought out of the Yellowstone on one trip and transferred to the *C. K. Peck*. How such a load could have been piled on the little *Terry* not even the men on the boat appeared to know. It hid every part of the boat, barring only the pilot-house and smokestacks. But such a load will not be again attempted. For such boats as ply the Yellowstone there are at least fifteen full loads of buffalo hides and other pelts. Reckoning one thousand hides to three carloads and adding to this fifty cars for the other pelts, it will take at least three hundred and fifty box-cars to carry this stupendous bulk of peltry East to market. These figures are not guesses, but estimates made by men whose business it is to know about the amount of hides and furs awaiting shipment."



The Last of the Herd.
(From Whitney's "Musk Ox, Bison, Sheep and Goat.")

The *Journal* then goes on to say:

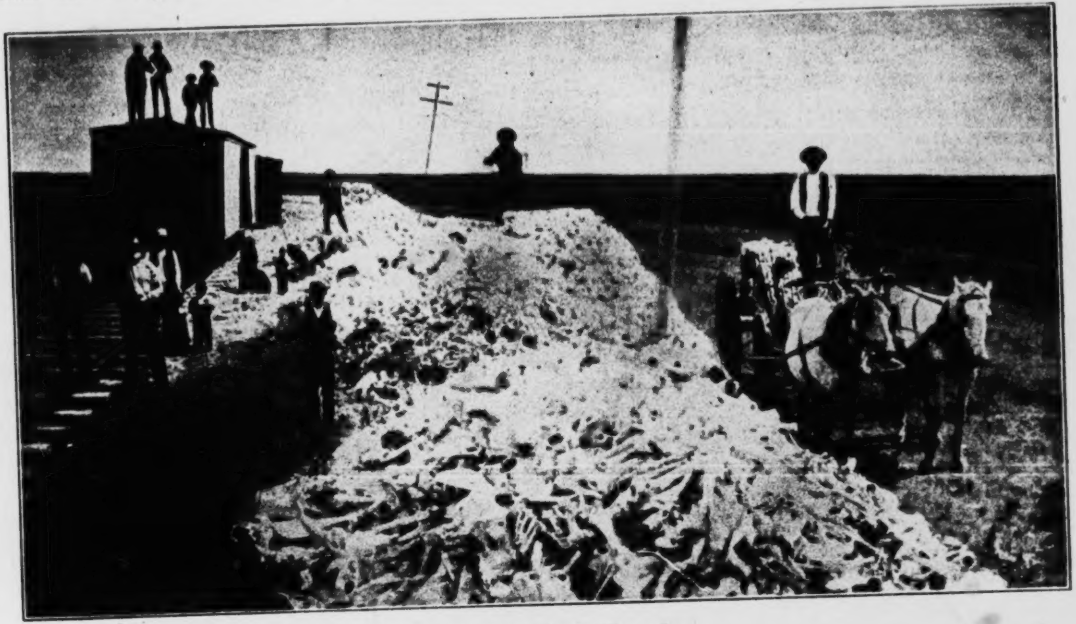
"The past severe winter [of 1880–81] caused the buffalo to bunch themselves in a few valleys where there was pasturage, and there the slaughter went on all winter. There was no sport about it, simply shooting down the famine-tamed animals as cattle might be shot down in a barnyard. To the credit of the Indians, it can be said that they killed no more than they could save the meat from. The greater part of the slaughter was done by the white hunters, or butchers, rather, who followed the business of killing and skinning buffalo by the month, leaving the carcasses to rot."

In 1881 there was a stampede of butcher-hunters to the northern range country comparable to that which had occurred in the south about ten years earlier. Prices for both robes and "green" hides had advanced, and the hunters' rewards became richer than they ever had been in the southern field. Furthermore, the shocking and criminal wastefulness as to hides, that was so marked a feature of the southern butchery was almost unknown in the North; the skins taken there being for robes. Care and skill were exercised in removing and preserving the hides, for the men realized that the supply of buffalo robes soon would end forever. It is highly probable that every hundred skins marketed from the northern range after 1880 represented not more than 110 dead buffalos, and nearly the whole of this small percentage of loss was due to the escape of wounded animals which died afterward and were devoured by wolves. But, as in the South, practically all of the meat went to waste—the wolves having the time of their lives in gorging themselves upon it.

To recount further the circumstances of the annihilation of the herds in the North is unnecessary and would be tedious. The same rapacity and heartlessness dominated, the same bloody tragedies were enacted, and the same sickening scenes were presented there as had been in the southern country a few years before. But the ghastly work was sooner over. So tremendous had been the slaughter during the first three years of the onslaught that by the summer of 1883, incredible as it may be to the reader of the present generation, the great body of northern buffalos had ceased to exist. Beset upon the South, the East, and the North by a horde of hunters, they had been shot down by myriads until the largest herd that still existed in the entire country was one of about 10,000 head that ranged between the Moreau and Grand Rivers in western Dakota, north of the black Hills. But in October, 1883, Sitting Bull, with about 1,000 of his braves, coming from the Standing Rock Agency, together with a number of white men, swooped down upon this herd, and in two days' time completely wiped it out.

Across in the Dominion, where wholesale slaughter of buffalos had originated in early times, the destruction had been proportionately great. Aside from a few forlorn little bands trying to hide from their merciless enemies, there were no buffalos left in Canada, excepting perhaps a few thousand that had taken refuge in the direction of the distant Great Slave Lake country.

Again, as in the southern country, the small number of wandering little groups in the North that had escaped the general destruction were, with the exception of the insignificant bunch protected in the Yellowstone National Park, persistently tracked down through the later years of that decade and killed nearly to the last individual; and the same kind of work went on in Canada, and was pursued into the northwestern region until the number left there was reduced to less than 600. In the United States hide-hunting as a business ceased for all time in 1884, the last carload shipment of robe-hides from the North having been made from Dickinson, in the western part of the present State of North Dakota, in that year; and this was not only the last carload, but the only one taken out of the northern country in 1884.



The Final Act in the Tragedy.
(From Baillie-Grohman's "Sport and Life.")

The work of exterminating the buffalo herds everywhere had been thoroughly done. A very careful census of the number of the animals still running wild and unprotected in the whole of North America on January 1, 1889, produced the following astonishing results:

In the Panhandle of Texas	25
In Colorado (in the mountain "parks")	20
In southern Wyoming	26
In Montana (in the Musselshell country)	10
In western Dakota	4
Total number in the United States	85
In Athabasca, Canadian Dominion (estimated)	550
Total in all North America	635

Adding to this total, the number (256) known to be in captivity at that time, and the 200 then under the protection of the National Government in the Yellowstone Park, the whole number of individuals of *Bison americanus* left alive on January 1, 1889, was raised to 1,091.

There were no means of ascertaining definitely the total number of buffalos slaughtered within the United States during the period of reckless destruction; that is to say, in the eighteen years beginning with 1866 and ending with 1883, when the supply of animals practically had become exhausted. Various estimates have been made, but as a rule they were mere guesses, some of them being preposterously large. However, by utilizing the freight records of the railroads that participated in the hide and the bone traffic, so far as they were available and significant, by considering the "records" of annual "killings" made by many hide-hunting outfits and the opinions of conservative men as to the visual magnitude of the herds, some conclusions that probably approximated the facts were reached. What appears to be the more reasonable among these, made the total number in "round figures" 12,000,000. This makes judicious allowance for the natural annual increase of the animals, for the number killed for all purposes by the Indians and by white men, including military forces and railroad-builders, for food. Of this great total, it was estimated that 9,000,000 were killed by white men through motives or for purposes other than those directly related to food supply—by people such as railway passengers, who killed "for the fun of it"; by alleged "sportsmen" who shot, and shot, and shot in wantonness; and by the horde of hunters who killed for robes and hides. However, even this conservative estimate may seem gross exaggeration to readers not familiar with conditions of the Great Plains thirty years ago, but to those who have seen that country darkened for miles in every direction by the enormous herds of buffalos, it is likely to be regarded as being too small properly to represent the facts.

A gruesome, yet reasonably lucrative, business that arose from the destruction of the buffalo herds was that of gathering their bones, with which the plains everywhere became strewn, and shipping them away to makers of carbon and of fertilizers. During the years in which there was material for this trade the quantity of bones gathered for shipment to the East was so great that the traffic made a very important part of the east-bound freight of every railroad that traversed the old buffalo ranges. The business began on the southern range as early as 1872 and soon became a common industry. In many localities in the southern country the skeletons and separated bones of buffalos were so thick upon the ground that it was said "they whitened the landscape." Steamboats, wherever they could, competed with the railroads for a share of the "bone business," and even sea-going vessels sailing from Texas ports for those of the Eastern States carried many tons of buffalo bones. By all carriers, some were shipped crushed and some uncrushed, and for the former from $18.00 to $20.00 per ton was paid, the uncrushed bringing from $12.00 to $15.00.

Under the influences of the wind and sun and the extremes of heat and cold, the flesh of a buffalo's carcase soon disintegrated and fell to dust, leaving the bones of almost the entire skeleton as bare and clean as if they had been denuded by some chemical process. Very naturally, the miles of bleaching bones had suggested gathering them and finding a market for them, which was easily done. Thousands of men engaged in the work and traversed the plains with wagons near and far, loading up the bones. Of the magnitude of the business in the southern field, an idea may be had from the fact that one railroad, the Atchison, Topeka & Santa Fé, within the first three years (1872–73–74) hauled away 5,400 tons of bones; and they were pretty well dried out, at that. In the North the Northern Pacific did a large business in this kind of freight. Even as late as 1886 overland travelers saw at many of its stations between Jamestown, Dakota, and Billings, Montana, immense heaps of bones lying alongside the track awaiting shipment. In 1885 a single firm forwarded over 200 tons of them from Miles City. The valleys of the Missouri and Yellowstone Rivers from as far as 100 miles on each side of those streams were cleared of buffalo bones.

This gleaning continued over the old, wide land of the buffalos until nothing worth the seeking remained. The greater number of transportation lines in the southern field led to so thorough a clean-up that there was scarcely the equal of a single skeleton left on a square mile of the range-land. Gathering these piteous relics would seem to have been a fitting sequel to the tragedies that annihilated in our country the uncountable host of what probably was the most remarkable wild animal that ever lived upon the earth within historical times.

Samuel R. Coggin.

The individual who early in life becomes imbued with the belief that there is something within him worthy of development is the one who achieves success. He may not at the outset be able to command the aid of money; he may not be the possessor of education; he may claim nothing in his contest with the great world before him except a noble determination honestly and sincerely to perform his part in life's drama. All history proves that the accessories of fortune and early book education, however desirable they may be when wisely directed, are not necessary in order for the aspiring young man to attain even the summit of earthly honor. Indeed, in instances too numerous to be recounted, the one who starts amidst all the advantages of education, wealth, and wise counsel, is lost in the intense struggle of human affairs. Wealth at the outset of one's career may prove a fatal handicap. The soldier who plunges into the heat of the conflict throws away his blanket and his knapsack. He needs in the fight a clear head, a strong arm, and a trusty weapon. When these elements are backed by a stout heart the victory is practically assured.

To the mind of Samuel R. Coggin, one of the most highly respected live-stock men of Texas, the fact that he had what has been termed "the mysterious gift of existence," was incentive enough to carry him to victory in anything he undertook. Mr. Coggin when a lad gained an intimation of the true principle that invariably leads to the accomplishment of worthy ambition. He felt instinctively that within himself were the possibilities that would open all doors. He was inspired by the ambition to make the best possible use of his own talents, and fifty years of busy life on the frontier in the midst of dangers and difficulties that tried the souls of the bravest, is an enduring monument to the character of Samuel R. Coggin.

Living at Brownwood, Texas, in one of the most elegant homes of the South, and in companionship with a faithful and devoted wife who anticipates every wish, the pioneer cowman is spending the evening of a busy and useful career. At the age of three score and ten, his mind is as clear and his reasoning faculties as acute as at any time in his life, and daily he passes upon business affairs that call for the best judgment of a well trained business man. The habit of self-reliance has been to Mr. Coggin a constant source of encouragement and strength, and his judgment in matters of large financial importance is such that it is sought by friends far and wide. As a farmer, a cattleman, a financier, and a man versed in all the details of business in a growing country, Mr. Coggin has been fortunate in being controlled by sound principles—the heritage, in some degree, from worthy ancestors, and developed by active participation in a field whose products are met with in the successful live stock men of Texas. Among the traits possessed by Mr. Coggin are indefatigable industry, a keen sagacity, a liberality in all worthy directions, and an innate modesty that has been a prevailing element in his character. He has never sought or desired any public recognition, and one of his greatest pleasures has been to assist in the advancement of his town and county, and especially the advancement of educational institutions. The men who began without the advantages of education appreciate the assistance a well-trained mind gives to its possessor, and many of the noble acts of beneficence to educational institutions recorded in the South are those of the veteran cattlemen.

The progenitors of the Coggin family are traced to England, Scotland, and Ireland. The ancestors upon both the paternal and maternal branches came early to the colonies and established themselves in the South. Levi Coggin, the father of Samuel R. Coggin, was born in Leverson County, North Carolina, in 1791. The elder Coggin lived to the ripe age of eighty-six years and died in 1877, at Brownwood, highly respected for his worthy qualities. The mother of Samuel R. Coggin, Frankie Lambeth before her marriage, died in 1872 in Lafayette County, Mississippi, where the family was then residing. There were nine children born to the union—Calvin, Salina, Moses J., Mary, Sarah, Samuel R., Simeon L., Frances, and Elizabeth. Levi Coggin was a successful farmer and trader, and, after the manner of the times, he taught his sons to work. Before he was twenty years of age, Samuel was well versed in all farm operations, and one of his earliest recollections carries him back to the cotton-field. He was born in North Carolina, February 23, 1851, and the first five years of his life were spent in the Pine Tree State. He then moved with his parents to Marshall County, Mississippi, where the family home was maintained until the opening of the Civil War.

In the ten years preceding the war, many young men of the South had their attention attracted to Texas. The great empire beyond the Mississippi was yearly drawing thousands of sturdy settlers from older States, and stories of returning travelers added to the excitement concerning the unrivalled advantages of the fertile valleys and boundless plains of Texas. M. J. Coggin, one of the older brothers of the family, made a trip to the land of promise, and upon his return his report was so encouraging that Samuel decided to join him in seeking a home and fortune in what was then known as the West. Samuel R. Coggin was twenty-three years of age, and was qualified by experience and natural ability to win his way anywhere. Fate decided that he should become a pioneer in a new country. The pioneers are a class of people fast disappearing from the world, for almost every region of the globe has been exploited, and electricity and steam have made possible many conveniences of which the pioneers of the Southwest had not the remotest dream. In the early days the log-rolling or the house-raising were important events that interested an entire neighborhood, and every good citizen was expected to turn out and perform his share of the work in introducing a new-comer into the community. The settlers lived off wild game, hog and hominy, tanned their own leather, made their own clothes and shoes, used herbs of the country for medicine, and in many instances made their own wagons, harness, and the simple furniture of the house and kitchen. Gourds were used as cups, dippers, and canteens, and, when necessary, a system of exchange enabled a family to live for months without the use of money. As Mr. Coggin explains, rogues and thieves were scarce, and every man was regarded as honest until he demonstrated that he was not. A kindly sentiment of helpfulness and a profound respect for individual rights prevailed, and under these circumstances, close to the great throbbing heart of nature, were nurtured and reared many of the noblest characters America has ever known. Upon the basis thus reared the Republic has been built. It is doubtful whether the world ever grew a more honest or upright body of men than the pioneers of the Southwest, and the wives and daughters of the pioneers, as has been eloquently said by a brilliant thinker, furnish convincing evidence of their divine lineage.

By means of hard labor and self-denial the joint savings of Samuel R. Coggin and his brother, Moses, amounted to $700 or $800, in 1854, when they started with a small party of Mississippians for Texas. They were prepared to embark in business for themselves. Mr. Coggin has all his life been an advocate that every young man should aim to become independent—should work for a salary only as long as is necessary to acquire means to engage in business for himself.

"I never worked but one day for wages," said he, "and that was in response to an emergency call when it was necessary to build a bridge. My advice to all young men is to aim to enter a business of their own—one that will grow and will furnish a support as the years pass. The reputation of a person is often as useful from a financial standpoint as a bank account."

Mr. Coggin and his brother entered into a partnership which lasted for more than forty years, and was terminated only by the death of the elder brother. The firm of Coggin & Brother became one of the most widely-known cattle firms of Texas, and the large operations made the name familiar throughout the length and breadth of the cattle world. M. J. Coggin was a man of unusual energy and perseverance, and the practical knowledge he gained of live stock made him a ranch manager of rare ability. Samuel R. Coggins's talents were utilized, as the years progressed, in looking after the market and the finances of the firm, and in this way he became interested in other lines of business connected with the cattle range. The brothers operated in perfect harmony, and both of them acquired large fortunes. M. J. Coggin was never married, but he erected at Brownwood a beautiful residence which he left at his death to his sister, Mrs. B. L. Taber.

Upon arriving in Texas, in 1854, the brothers proceeded to Houston, then one of the leading business points of the State, and a center from which large quantities of merchandise were distributed to the settlements. At this time, as recalled by Mr. Coggin, New Orleans was the market for Texas products, consisting principally of cotton, hides, and beef. The border of civilization extended nearly north and south through Fort Worth and Waco, the former a small military post on the bluff of Trinity River, and the latter an Indian village with a few white settlers. Beyond to the west was a vast area, unknown except to a few daring frontiersmen, and regarded by many as a desert country, of no value and having no probability of settlement. The Indian tribes roamed unmolested for a distance of 500 miles east and west in West Texas, and great herds of buffaloes ranged where now may be seen thiving towns and cultured communities. No man would have dared to prophesy in those days the future possibilities of West Texas; but Mr. Coggin recognized that a country capable of maintaining herds of buffaloes so vast that the numbers were past computation, had natural resources of soil and water which awaited only the hand of industry to make it one of the prosperous spots of earth. He soon decided to found a home on the frontier.

While casting about for a permanent location the brothers engaged in freighting. They purchased oxen and wagons, and for several years they distributed supplies from Houston to points as far north as Red River. The supplies consisted principally of salt, flour, bacon, coffee, sugar, and molasses, and the trips usually required an entire month. The price of salt was $10.00 a sack, and other supplies were disposed of at double the original cost. There were few roads, no bridges over the streams, and twelve or fifteen miles was considered a fair day's journey. The business prospered, and in 1858, after disposing of the trading outfit, the brothers invested in cows, and found themselves in possession of a herd of 3,000 Longhorns. Previous to this time the Coggin brothers ranged a small cattle herd in Houston and Bell Counties, but losses were so heavy that in 1857 they moved their cattle to Brown County, then in the extreme frontier. The county was organized in 1858, and in 1860 the herd, now largely increased, was placed upon a virgin range on Home Creek in Coleman County, a long step into the range country.

Coggin brothers were among the first to locate in this region. Their only neighbors were Dule Turner, who had reached the Colorado River two years previously, and one of the Stile brothers, who established a ranch four miles from that of the Coggin brothers in the spring of 1860. All the country west to the border line of New Mexico was open range. Luckily, the Indians at this time were not troublesome. A log ranch-house was built on the creek twelve miles from its confluence with the Colorado River, and in these primitive surroundings, far from the protecting arm of civilization, Mr. Coggin practically began his career as a cattleman. Beef cattle four and five years old were sold to buyers, who shipped them by steamboat from Shreveport. The price of market cattle ranged as high as

$15.00, which Mr. Coggin regards as equivalent to $30.00 at the present time. Free grass, no taxes, small death-rate, and nominal cost of labor, made this early cattle business one of the most promising ventures ever known in the United States. But a great change was at hand. The ominous mutterings of the Civil War, depredations by Indians and white thieves, the reduction of the range by the establishment of new ranches—these and other changes which rapidly unfolded, made the cattle business to many an ambitious beginner, a disastrous failure.

The war excitement carried into the army the flower of Texas manhood, and Mr. Coggins and his brother enlisted to fight under the flag of the Confederacy. They entrusted their cattle to the care of J. E. and Frank Stiles, and Samuel R. Coggin was enrolled in Allen's Regiment, which was assigned to Walker's Brigade, McCullough's Division, and performed duty in Arkansas to withstand the advance of the Federals. At the end of the two years, on account of sickness contracted in the swamps, Mr. Coggin was mustered out of service. He returned to the healthful atmosphere of West Texas, where he was soon restored to his usual strength, and found himself fighting Comanches and Kiowas in one of the most desperate and prolonged struggles in the frontier annals of America. This contest was continued through the Civil War, when the protection of the regular Army was withdrawn from the outposts, and did not come to a close on the Colorado River until 1875. During this long and trying period very many lives were lost and tremendous damage was inflicted on settlers, especially upon the cattlemen. Few suffered as did those who were located on the Colorado and Concho Rivers.

Shortly after the close of the Civil War, Coggin & Brother bought out Stiles Brothers, and in 1868 they added to their firm W. C. Parks, who was located upon the Colorado River with a herd of 4,000 cattle. The new firm was known as Coggins & Parks, but the firm of Coggin & Brother continued in matters outside the cattle business. In addition to rearing and selling cattle for the trail, the firm sent two herds to Mexico, and graded up the main herd until it was known as one of the best cattle herds of West Texas. At one time there were over 31,000 head of cattle on the ranch, and the company was entirely out of debt. In July, 1871, came the first great disaster. The Indians swooped down upon the country in such numbers that they drove off upwards of 12,000 cattle—the most disastrous expedition of the kind ever perpetrated in Texas. The route of the marauders lay across the Coggins & Parks range, and 7,000 head of cattle belonging to them disappeared in one day. Troops from Fort Concho failed to overtake the murderous band, although many cattle were found dead from exhaustion on the trail. The remainder of the Coggins & Parks herd was collected and driven to the Concho River as a safer range; but on Christmas eve of the same year, a second band of Indians, emboldened by the success of the July previous, raided Concho and Tom Green Counties and escaped with a great herd, estimated conservatively at 10,000 cattle. The Indians also carried off many horses, and all of West Texas was thrown into confusion. Within a single year one firm had lost 12,000 or 15,000 cattle, and much of the remaining property was scattered so widely that it was never recovered. The failure of the Federal Government to protect settlers from Indians led to many suits at law, and the Court of Claims later granted Coggins & Parks damages to the amount of $35,000—only a portion of the real losses inflicted by the savage foe.

In answer to the question as to what became of the thousands of cattle stolen from ranges of Texas by the Indians, it is said that large numbers were disposed of to unprincipled white men, who sold them in the markets of the North. It is believed, also, that in many instances the same influences induced Indians to engage in cattle-stealing expeditions, resulting often in loss of human life. For years after the Civil War, West Texas was a battle-ground, with the cowmen on one side and the Indians and cattle-rustlers upon the other. Thanks to the Texas rangers, this intolerable condition was finally brought to an end.

In the spring of 1872 Coggins & Parks gathered somewhat less than 8,000 cattle, the remnant of the herd of 31,000. These cattle were sold to John S. Chisum and others, and Mr. Coggin established himself in Brownwood, of which he was one of the founders, for a short time, until conditions became more settled. When he re-entered the business, Mr. Coggin marked out a departure from the ordinary course of handling cattle.

He had observed that it was possible to sell an entire herd of cattle to one purchaser, and the plan which he adopted was to develop a herd and sell it in a single body. Being in touch with cattle-buyers and sellers, he knew where he could purchase the animals he desired in starting a herd, and his success in the special line he adopted, exceeded all his expectations. The plan was original with Mr. Coggin, and there were years when he and his brother had two or three large herds of cattle under course of development at the same time. Mr. Coggin bought the common cattle of the range, introduced high-bred males, and when opportunity was presented, the herd was closed out entirely. One of the herds brought $100,000; a second, $62,000; a third, $57,000; and a fourth, $45,000. Mr. Coggin estimates that the herd selling for $57,000 cost $15,000. The firm also grazed stock in Indian Territory, and sold in the usual markets. Cattle from herds controlled by Coggin & Brother were to be seen in Kansas, Colorado, New Mexico, Montana, and the Eastern markets. The periods from 1875 to 1890, Mr. Coggin regards as very favorable for cattlemen, although there were occasional depressions.

"During the Indian times," said he, "the heavy losses often wiped out the entire profits, and the advantages of free grass on the open range were in many instances offset by winter losses and inroads of rustlers.

"The fenced pasture is the best for the cattleman, although it was hard for many of the old time men to believe it. We adopted the practice of putting out line-riders, which was a great improvement on the original practice of permitting the cattle to roam at will. The line-riders kept the different herds separate, and gave warning of the presence of Indians. By this means it was possible for the manager to know every night the condition of affairs in various parts of his range. We were the first to put up a fence in Coleman County. We fenced in an area of 1,500 acres, where we held such stock as we desired to send to market. We also adopted the plan of holding 400 or 500 calves in pens for several days at a time, at ranch headquarters, in order to tame their mothers. Our general policy was to handle all stock as gently as possible, and to sell in large blocks."

As early as 1882 Mr. Coggin brought from Kentucky a carload of registered bulls. Although half of the animals died on account of change of climate, the good effect of the new blood was soon perceptible in the herd, and Mr. Coggin has continued a consistent advocate of grading up the herds. He foresaw the advance in land values that inevitably accompanies increase of population, and as early as 1874, he bought a large body of land in the immediate vicinity of Brownwood, and started a ranch.

Coggin & Brother built the first stone business house in Brown County, at Brownwood, in 1875, and soon began investing heavily in land in neighboring counties, the transactions extending over many years and embracing large sums of money.

In 1876 the firm of Coggins & Parks bought a herd of 4,000 cattle of John S. Chisum, and established a ranch on Pease River, which was sold four years later to the Metador Land and Cattle Company, and was the foundation of the Matador Ranch. The Duck Creek Ranch was next bought and was sold at a handsome profit within a year.

Samuel R. Coggin each year became more closely identified with the interests of Brown County, where he had large investments, and whose settlers regarded him as one of its most liberal and enterprising citizens. The banking-house of Coggin Brothers & Company was established at Brownwood, soon after becoming Coggin, Ford & Martin, and in 1890 the business was closed out to the organizers of the City National Bank. The private banking-house of Coggin Brothers & Ford was later instituted, and is now one of the leading financial firms of the city. Mr. Coggin was one of the organizers, in 1885, of the Brownwood Roller Flouring Mills, and engaged in many branches of business, almost invariably with success. He has been for years actively engaged in mercantile business.

S. L. Coggin, one of the brothers, came to Texas in 1880, and in conjunction with the other members of the family, dealt largely in land and sheep. The drouths of 1886 and 1893 were almost as disastrous to many settlers as the inroads of the Indians upon the stock-raisers. Many farmers were reduced to great extremity, and owed their financial preservation to the public spirit of the banking firm of Coggin Brothers & Ford, who came forward manfully to the rescue, absolutely declining to profit by the necessities of the people of their county. It is in such times as these that the real nature of a man is tested, and the noble principle of unselfishness becomes manifest. No testimonial of words can express the gratitude of one whose courage has been upheld and necessities supplied by friendly aid in times of impending financial ruin. It is no exaggeration to say that in all his business operations, extending over the period from 1854 to the present time, the transactions of Mr. Coggin have invariably been controlled by principles of justice and liberality. His career is a complete refutation of the charge that a man cannot be honest and become wealthy.

Mr. Coggin was married January 3, 1884, to Mrs. E. L. Smith, of Alvarado, Johnson County, Texas. Mrs. Coggins is a daughter of B. B. Lightfoot, of Johnson County. By her sympathy and hearty coöperation with his plans, she has been a never-failing inspiration to her husband, and has made the home in the suburbs of Brownwood one of the most attractive in Texas.

Among the investments made by Mr. Coggin is a gold mine in Idaho. In this as well as in his other undertakings, he has shown his good judgment, having acquired a knowledge of this business earlier in life, and knowing the safety of such such investments if common sense and experience is employed. After a thorough investigation he purchased mining property which includes about 225 acres, at a nominal figure. This property has passed through the experimental stage, and promises to be one of the best producers in the Northwest. The property is ideal in its location, and is provided with a modern reduction mill, run by electricty, developed by an inexhaustible water supply. He owns one of the richest farms in Brown County, and his ranch on the Colorado River in Runnels, Concho, and Coleman Counties fronts for eight miles on the river. He foresees for Texas the greatest future of any State of the Union.

"The man who will acquire possession of eight or ten sections of land in West Texas," said Mr. Coggin, "who will raise live stock, and cultivate 100 or 150 acres of land each year, will find himself in the safest business in the world. At fifty years of age such a man ought to be wealthy. A man can raise hogs alone in West Texas and make a fortune; but we are raising cotton, hay, alfalfa, and the principal grains. Brownwood has received as high as 30,000 bales of cotton in a season. Wheat averages twenty bushels to the acre and sometimes goes to forty bushels; oats fifty to one hundred bushels to the acre, and rye is almost a natural growth, ranging as high as seventy-five or eighty bushels to the acre. We have a mild, healthful climate, and the farmers who have been attracted to West Texas are among the best people of the earth. I have never regretted the day, fifty years ago, when I adopted West Texas as my home."

A survey of the life and character of Samuel R. Coggin—his struggle and his triumphs, his steadfast adherance to integrity of purpose, and his abounding faith in accomplishment of worthy aims—should encourage every aspiring young man. The time has come when the best judgment of mankind pronounces him the true man who accomplishes something useful; who adds to the sum of human happiness. The warrior is receding; the thinker and the broad-minded man of business are occupying the stage. Judged by this modern standard, Samuel R. Coggin and men of his character have won a position of lasting recognition.

Present Status of the Buffalo and Its Hybrid Kin.

White Savages and Wild Creatures.—Extermination of Wild Buffalos Inevitable.—Buffalo Stupidity.—Early Attempts in Congress to Protect Buffalos.—Ineffective Local Legislation.—Captive Buffalos Practically the Only Survivors.—Present-Time Number of Living Buffalos.—Roving Wild Buffalos Doomed.—Recent Congressional Legislation for a Herd of Captives in Yellowstone Park.—Need for Another Government Preserve.—Decline of the Slave Lake Herd.—Present Value of Full-Blood Buffalos.—Early Attempts to Domesticate the Buffalo.—Buffalo Breeding in Captivity.—Early Herds of Captives.—The Captive Buffalo merely a Partly-Tamed Wild Animal.—Various Characteristics of Buffalos.—Natural Term of Life.—Working Buffalos.—Mental Qualities of the Buffalo.—Cross-Breeding of Buffalos and Domestic Cattle.—The Great Purpose of Western Cross-Breeding.—Production of the Western "Catalo."—Character of the New Animals.—Disappointing Results of the Experiments.—Future of the Surviving Buffalos.—General Effects of Captivity Upon the Species.—Absolute Extinction Its Approaching Fate.—Smithsonian Institution's Expedition in 1886.—Work of Taxidermists and of "Animal Stuffers."

Of the destruction of the buffalo herds, Mr. William T. Hornaday, in his monograph, "The Extermination of the American Bison," incorporated into Part II. of the annual report of the Smithsonian Institution for 1887, says:

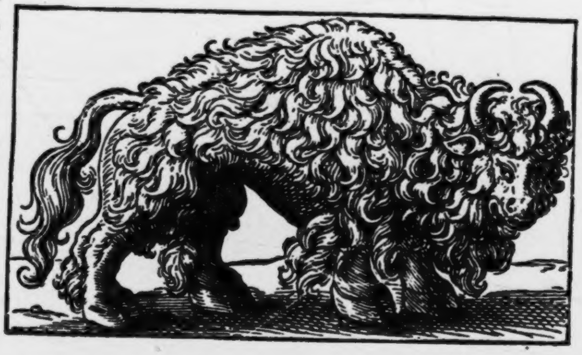
"Its record is a disgrace to the American people in general, and the Territorial, State and General government, in particular. It will cause succeeding generations to regard us as being possessed of the leading characteristics of the savage and the beast of prey—cruelty and greed. We will be likened to the bloodthirsty tiger of the Indian jungle, who slaughters a dozen bullocks at once when he knows he can eat only one."

"In one respect, at least, the white men who engaged in the systematic slaughter of the bison were savages just as much as the Piegan Indians, who would drive a whole herd over a precipice to secure a week's rations of meat for a single village. The men who killed buffalos for their tongues and those who shot them from the railway trains for sport were murderers. In no way does civilized man so quickly revert to his former state as when he is alone with the beasts of the field. Give him a gun and something which he may kill without getting himself into trouble, and, presto! he is instantly a savage again, finding exquistie delight in bloodshed, slaughter and death, if not for gain, then solely for the joy and happiness of it. There is no kind of warfare against game animals too unfair, too disreputable, or too mean for white men to engage in if they can only do so with safety to their own precious carcasses. They will shoot buffalo and antelope from running railway trains, drive deer into water with hounds and cut their throats in cold blood, kill does with fawns a week old, kill fawns by the score for their spotted skins, slaughter deer, moose, and caribou in the snow at a pitiful disadvantage, just as the wolves do; exterminate the wild ducks on the whole Atlantic seaboard with punt guns for the metropolitan markets; kill off the Rocky Mountain goats for hides worth only 50 cents apiece, destroy wagon loads of trout with dynamite, and so on to the end of the chapter."

Yet, the fact stands out plain before us that it was impossible for the buffalos to have survived very long as roving wild animals, unless a large area of country, of which our people would make far more productive use, were set apart for them and constantly guarded. Notwithstanding that buffalos lived and flourished in millions upon the western plains, our stockmen and farmers are making better use of the land, and the animals now upon it are not only greater in number, but they are far more valuable to mankind, head for head, than wild buffalos possibly could be. The cruelty, the wantonness, and wastefulness that attended the annihilation of the buffalo herds, rather than the fact of the inevitable prematurely having come to pass, shock the sensibilities. Even among those who were engaged in the destructive work there were men who have not yet forgotten the revolting scenes. Some of these have told the present writer that "it was awful," and others have said "that it was outrageous the way some men acted" (the "other fellow" seldom behaves well).

The stupidity of the buffalos contributed largely to the swiftness of their undoing. They were lower in intelligence than the wild cattle of Asia, and, according to all accounts of their next of kin, the aurochs, they were not nearly so quick-witted as that animal. They would blindly plunge over precipices in their panicky stampedes, crowd into quagmires and quicksands when many of their number were struggling there right before their eyes, and rush headlong against an object as big as a railroad train, the very motion of which should have suggested its dangerous character. As long as they existed in large herds their great number seemed to impart to each individual a feeling of dependence upon the others and of a kind of general security from harm, even when they saw or heard things unusual in their daily lives. As we have already seen, when they heard the sharp crack of a rifle, and saw a puff of white smoke rising from the ground a short distance away, they did not connect these phenomena with the dying struggles of their leader. They stood around wondering what it all meant, and if no other buffalo promptly took command and led them away they remained where they were, awaiting their turns to be shot, instead of acting independently and taking to their heels. A very serious wound appeared to enliven their wits to a degree unknown when they were body-whole, for then the injured animal, seeming fully to realize the extent of his disability, would, if he could, secrete himself. If there were a deep, narrow ravine at hand he would hobble to its head and put himself in its narrowest part, perhaps in a little pocket barely wide enough to admit him, and which he would occupy with his head to the entrance to defend himself against wolves. There he would stay until he recovered from his injury or died, in the meantime, no doubt, suffering for many days without food or water. Although some of the Indians had hunted buffalos with guns for a long while before the finishing slaughter began, and while most of the animals repeatedly heard the cracks of rifles and saw the puffs of smoke, when it was in progress, it was not until the herds were broken up and the survivors scattered into small bands, that those which still lived became wild and wary, ready to gallop away at the slightest cause of alarm, and to run indefinitely. If they had not been so slow in learning the wisdom of this policy of every buffalo for himself, the extinction of their herds would have been a harder and longer job for the hide-hunters.

While the wholesale slaughter of the "southern herd" was going on, several very determined efforts were made in Congress to protect the buffalos, check the massacre, and preserve the species from extinction, the first bill for these purposes having been introduced in March, 1871; but it never got beyond the printed stage. During the ensuing five years several different propositions were introduced, but with one exception all of them either were talked to death or died of neglect. The exception, the provisions of which are of no consequence now, occurred in 1874, when a bill to prevent the useless slaughter of buffalos within the Territories of the United States, passed both houses. It went to President Grant for signature, and expired in his hands at the adjournment of that session of Congress. The last move in Congress in behalf of the buffalos in that period was made in March, 1875, by a bill to tax buffalo hides. Like thousands of others that have been "referred to the



Another Old Picture of a Buffalo.
(*From De Laet's "Descriptionis Indiae Occidentalis."*)

Committee on Ways and Means," it was never heard of more.

At divers times the Legislatures of certain of the Western States and Territories enacted laws that were feebly and vaguely intended to provide some sort of protection to the harried buffalos. A pioneer in this sort of legislation was the game law of the Territory of Colorado, enacted in 1872, which forbade hunters leaving behind them any flesh to spoil.

But in every instance all of this local legislation proved impotent. No means were provided effectively to enforce the laws, and it is doubtful if anything less than a large standing army could have enforced them. Even in our own times of rigid game laws, State Game Wardens and many Deputies, together with attractive money-rewards for convictions, such statutes cannot be enforced as they should, nor as they are intended to be.

Among all of our native wild animals there is none more interesting to the people of the United States than the buffalo, and in every zoological "garden" in the country that has a few of such animals they are usually the central objects of attraction. The existence of these and some other captive buffalos and of a few hundred that are still running wild, nearly all of the latter being in the far-off region of the Great Slave Lake, enables us to say that *Bison americanus* is not yet absolutely extinct. But as a race of free wild animals with a future before it, and that was uncountable in number in our country within the memory of men who are not yet past the prime of life, it is not far from exactness to say that the species has joined the host of extinct creatures.

In our account of the destruction of the buffalo herds a statement appears showing that the total number of living buffalos in all of North America on January 1, 1889, was 1,091. These consisted of 550 (estimated) in the Slave Lake country, 256 in captivity, 200 under Government protection in the Yellowstone National Park, and 85 running wild and unprotected in parts of the old buffalo range in our Western States. Since then there has been an increase in the total number, but entirely among the captives, as shown by the following from Mr. William T. Hornaday's superb new work, "The American Natural History" (Charles Scribners' Sons), published April, 1904:

> "On March 1, 1903, Dr. Frank Baker completed a count of all the pure blood captive Buffaloes alive at that date, with the following result:

CAPTIVE BUFFALOES:		
In the United States		969
In Canada		41
In Europe		109
		1,119
WILD BUFFALOES (ESTIMATED):		
In the United States	34	
In Canada	600	634
Total, captive and wild		1,753

The 600 credited to Canada form the Great Slave Lake country herd, which took refuge in that region at the close of the annihilating War on the Buffalos. Of the Yellowstone Park herd, which Mr. Hornaday classifies as wild, he says:

"In 1890 the Yellowstone Park herd contained about 300 head; but through inadequate protection, and killing done by unprincipled poachers in quest of heads to sell, to-day [early in 1904] less than thirty buffalos remain. The weakness of the efforts to protect that herd is a national disgrace. Through lack of sufficient laws and patrol service the poachers were permitted to rob the American people of a wild herd which no expenditure of money can ever replace."

In the year 1900 the *Boston Transcript* newspaper made a "census" of the living buffalos, captive and wild, from which a total of 1,024 was reached; the Slave Lake wild herd being estimated at only 200, while that of the Yellowstone Park "was placed at between 300 and 400." Of the methods of that census, Mr. Mark Simonton, who had had charge of it, in an issue of that paper in September, 1904, says:

"Letters were written to the superintendents of every private and public park in America and in Europe. These letters requested not only the number of buffaloes in each park, but the names of such persons as were known to possess a large or small herd. To these more letters were sent. In this way every person and every superintendent of a park known to possess as much as one buffalo was canvassed. The work was done with care and thoroughness. The census, when complete, was sent to every owner of buffaloes and to every person familiar with herds of buffalo, and was said by each to be accurate in so far as it related to the herds he had knowledge of—a reasonably sure certificate of the accuracy of the whole."

Mr. Simonton assumes (apparently without sound reasons) that the 1,024 of this census was "more than twice as many as were supposed to be in existence by those not familiar with the animal."

In 1904 the *Transcript* repeated its "census" by the same methods, with Mr. Simonton in charge, in which the Yellowstone Park herd was reduced in number to 30, and that of the Slave Lake region left as it had been estimated in 1890—200 head, while the Yellowstone Park corral herd—to which we shall refer more definitely presently—was counted in at 40, which, according to the latest report, is its number. The result of this "census" raised the *Transcript's* total for the year 1900 (1,024) "to at least 1,233 in 1904," "an increase of 200 in four years." With respect to the uncertainty of this result, due to widely different opinions of the size of the Slave Lake herd, and also of the uncertainty of such "estimates," generally, we quote the following from Mr. Simonton's article:

"Concerning the present numbers of this herd, the present writer has directed more than a dozen letters to hunters who have lately been in that region, to officials of the Northwest Mounted Police, who are charged with the enforcement of those Canadian game laws which make it a crime to kill a buffalo, and to agents of the Hudson Bay Company at the remotest points of that corporation's territory. The estimates received from these various sources run from 70 to 600. Inasmuch as the exact number is quite impossible to ascertain it has been deemed conservative to make the estimate the same as four years ago, 200. It is doubtful if the natural increase in that period has exceeded the loss by death and the depredations of wolves and an occasional poaching Indian who defies the mounted police."

Charles Goodnight's Buffalos on His Ranch at Goodnight, Texas.
(From a photograph.)

In the passage quoted above from Mr. Hornaday's new work he says the Yellowstone Park herd in 1890 consisted of about 300 head. In January, 1889, it was counted as numbering 200. This increase of 50 per cent in about a year evidently could not have been by births, but must have been due to the in-drifting of some fugitives which had escaped the general slaughter of their race. In Dr. Baker's count of the number of captive buffalos and estimate of wild ones living in March, 1903, which Mr. Hornaday uses, and which no doubt very closely represents the facts, the number of wild ones in the United States at that time is put down as 34; not more than 30 of these—Mr. Hornaday says "less than 30"--constituted the Yellowstone Park herd; leaving 4 running wild and unprotected. Practically, this means that there are no buffalos running wild and unprotected in the United States at the present time—the close of the year 1904.

During several recent years it has been asserted, as it still is, in newspapers and otherwise, that a small bunch of buffalos lingers far up on the headwaters of the South Platte River in central Colorado, and that there is another in the remote parts of Routt County, which is in the northwestern corner of that State. Inasmuch as no one can be found who has seen these alleged "herds," or who has any other kind of actual knowledge concerning them, and as these parts of Colorado are familiar to many men, it is plain that such statements are without foundation in fact. The South Platte mountain country is too well known and too much tramped over by "tourists," hunters, and prospectors for even a few buffalos to exist there without their whereabouts becoming known. A railroad under construction on nearly an "air line" from Denver to Salt Lake City is located through Routt County. As several routes for it were surveyed through that region it would seem certain that some members of the various engineering parties, or some of the many "land-seekers" and prospectors of all sorts who have swarmed into and over Routt County—which is of large area—since knowledge of the intended construction of this road into that railroadless region became public, would have seen signs of the buffalos or heard of them, had there been any there. But they have neither seen nor heard.

The experience of fifteen years or so in the Yellowstone Park has proved that buffalos roving at will over a comparatively large area of country—that park is nearly as large as the State of Connecticut—cannot be preserved by any practicable method. The cost of thoroughly policing such a range would be too much, and the temptation to poachers is too great when exceptionally fine mounted buffalo heads are worth from $300 to $500, as they are at the present time. Since 1890 poachers have persistently hung around the Yellowstone Park every winter looking for buffalos that might have wandered across the line, and have not hesitated to invade the park itself and kill a buffalo "when nobody was looking." This is why the herd there has been reduced to not more than thirty beasts.

In 1902 Congress took the first step toward maintaining a herd of buffalos in the Yellowstone Park under conditions that would work an increase of its number. This action largely was due to the interest and efforts of Representative John W. Lacy, of Oskaloosa, Iowa, and it appropriated the sum of $15,000 for the purpose of purchasing and establishing within a large corral, a herd of captive buffalos. This undertaking was very wisely and appropriately committed to the Department of Agriculture. That Department entrusted the work to Colonel Charles J. Jones, of Garden City, Kansas, who, from his early interest in the preservation of the species and his valuable and long-continued experiments in cross-breeding buffalos and domestic cattle on his ranch near Garden City, became popularly known as "Buffalo" Jones. In actual knowledge of the animals in the wild state, as well as in that of captivity, and in intimate contact with them, Colonel Jones is one of the best qualified living men for such a duty. Eighteen cows were purchased from the Allard herd in Montana; three bulls were obtained from Mr. Charles Goodnight, of Goodnight, Texas; and two calves were captured from the wild herd already in the park. To this collection, which was brought together in the spring of 1893, seventeen calves have already been born, and were living in August, 1904, at which time the herd numbered forty, no deaths having occurred in it. There is every reason to expect that this herd, uniting as it does three widely separated strains of blood, and living under nearly the same conditions as those of buffalos in the wild life, will, if liberally and intelligently sustained by future administrations, go far in perpetuating the species through the twentieth century.

"But," says Mr. Hornaday, in his "American Natural History," it should be conceded at the beginning that the effort can succeed only by giving the animals a great area to roam over at will. In addition to that herd, however, another should immediately be established in the plains region, in a fenced reservation of not less than 100 square miles, with choice grazing, water, and ravine shelters. It is only by such methods that the American people can in a small measure atone for the annihilation of the great herds between 1870 and 1885, and the subsequent brutal slaughter by poachers of the Yellowstone Park herd of 300 head."

The Slave Lake herd may continue to linger in the desolate, inhospitable, and almost uninhabited region in which it ranges, through the first quarter of this century, and occasionally, through captured calves, contribute a new strain of blood to captive herds to offset the evils of persistent in-breeding. But it has made no encouraging increase in the last fifteen years, and, notwithstanding that it is a crime to kill a buffalo in Canada, and that this herd receives far more efficient protection from the Canadian Mounted Police than any our Government ever gave its Yellowstone Park herd, the Slave Lake bunch may be expected gradually to decrease in number, and pass out of existence twenty-five or thirty years hence.

As live stock, the present-time value of pureblood buffalos is far above that of domestic cattle, and the current prices for them will "look good" to cattlemen, as a full-grown buffalo cow in New York city is worth from $400 to $500; and an adult bull will bring from $300 to $400.

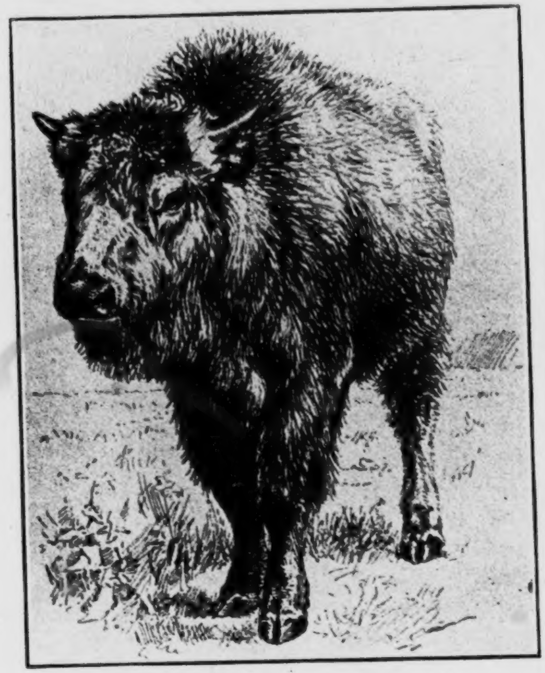
Both the Spanish and the English pioneers in the present domain of the United States, upon their first encounter with the buffalos, believed that these animals could be domesticated and made as useful as other cattle. While it is not known at present that the Spaniards in the southwest ever undertook to do it, there are records of many early attempts at it by the pioneer English settlers in the eastern parts of the country. Among these the earliest appears to have been that of the Huguenot settlers at Manikintown on the James River in Virginia, about fourteen miles above Richmond. Some of these people in 1701 captured a few head of buffalos and began the domestication of their offspring; but there seems to be no account of the results of the experiment nor of the length of time it was continued. Many of the early settlers west of the Alleghanies regarded the buffalos as likely to prove easily domesticable and of great service, and in various parts of the country attempts were made thus to utilize them, but without any permanent results. As remarked by Mr. Thomas Ashe, from whose "Travels in Americain 1806" we have quoted in a preceding part of this volume, "a few were domesticated by the curious, or carried through the country on a public show."

In the West the capture of buffalo calves was a common occurrence even as early as the fur-trading period, these captives being kept at the trading-posts. But by the time they became about two-thirds grown the temptation to eat them dominated over any other consideration, and so they were fattened and made the mainstay of some special feasts at the posts. It was not until the annihilating slaughter had progressed far that the capture of buffalos with the definite purpose of perpetuating the species by breeding them in captivity began.

Charles Goodnight, of Goodnight, Texas, was a pioneer in this work, and has given it more or less of his attention ever since; having begun it in 1878. Colonel Charles J. Jones, of Garden City, Kansas, founded a herd in 1885 that became of much interest and importance in connection with his subsequent experiments in cross-breeding. Charles Allard, of the Flathead Indian Reservation in Montana, in the same period started a herd that is still in existence. When William F. Cody organized his "Wild West Show" he included a small herd of buffalos among its "attractions." The birth of four calves while the show was exhibiting in London in 1888 afforded proof of the buffalos' possibilities in breeding, even under the most unfavorable circumstances.

The largest herd of captive buffalos assembled in that period was that of S. L. Bedson, of Stony Mountain, Manitoba, which in 1888 consisted of 23 bulls, 35 cows, and 12 calves, a total of 70. Beside these he had 3 half-breed cows, 5 bulls, and 5 calves. These, together with 5 that had been killed and 9 that had been given away, represented what had been accomplished at Stony Mountain since 1877, when the herd had been founded with 1 bull, 4 heifers, and 5 calves, all full-blood, for which Bedson had paid $1,000. In November, 1888, the entire herd, 70 full-bloods and 13 half-breeds, was sold to Colonel Charles J. Jones for $50,000 and added to his herd in Kansas.

Of the 256 full-blood buffalos that were in captivity on January 1, 1889, three-fourths were in the five herds referred to in the foregoing: Goodnight had 13, Jones 57, Allard 35, Cody 18, and Bedson 70. The others were scattered over the country singly, in pairs, and in small groups, some in the hands of individuals, and some in zoölogical "gardens," while 7 were in foreign lands.



Half-Breed Catalo Calf, Ten Months Old.
(*From a Report of the Smithsonian Institution.*)

While buffalo calves were easily tamed, especially if taken when only a few weeks old' and while the adult animals breed in captivity and usually are easily cared for, none of the species has as yet been really domesticated. The captives are merely more or less tamed wild animals that must be kept in secure enclosures and that would, if they could, separate from their human keepers without a pang of regret. The young wild-born calves were very simple-minded little creatures that quickly became perfectly docile prisoners. Their only cry is described as "a low-pitched, pig-like grunt through the nose, which was uttered only when hungry or thirsty." Plainsmen and buffalo-hunters have said that it was a common practice in old times for a man who had captured a young calf to make it follow him by placing one of his fingers in its mouth, and allowing the calf to suck it for a moment. Often a calf was induced in this way to follow its captor, whether he be mounted or on foot, for miles, and eventually to join his camp outfit. But usually before they were half-grown, if they lived so long, they showed plainly that it was their intention to be buffalos, and not "dumb, driven cattle."

In Conard's history of the life and adventures of R. L. Wootton, an old-time plainsman and Indian-trader, it is said that while he was employed in 1840 as buffalo-hunter for Bent's Fort, a large trading-post on the Arkansas River, within the limits of the present State of Colorado, he conceived the idea of rearing buffalo calves for profit. Conard says that in 1841 Wootton built a stockade on the site of the city of Pueblo, Colorado, in which he assembled forty-two captured calves which were nourished by domestic cows brought from New Mexico for that purpose; and that most of the calves survived, and after having been built up on solid food "were taken east and sold at good prices to showmen and others who desired such curiosities."

The breeding season among the wild buffalos was one of great commotion in the herds, much of which was due to the pawing of the earth and the throwing up of dust, and bellowing and blustering, and some "grand-stand" fighting on the part of the bulls. It used to be held by many writers that the buffalos paired or mated, male and female, and that family identity was in a measure preserved in the herds, and that each old bull maintained an individual harem and group of progeny of his own. But this picturesque fancy, ascribing to the buffalo a degree of intelligence which he never possessed, was completely disproved before the herds had been destroyed. In the entire process of reproduction the wild buffalos' habits were similar to those of domestic cattle.

At the close of the breeding season the herd quickly settled down to its normal condition. The mass gradually resolved itself into the numerous bands or herdlets of from twenty to a hundred individuals, so characteristic of buffalos on their feeding-grounds, and these slowly would scatter in search of the best grass until the herd covered many square miles of country. In this scattering the cows, calves, and yearlings usually would group by themselves, while the males of two years and upward would do the same. Coronado and his men were "much surprised at sometimes meeting innumerable herds of bulls without a single cow, and other herds of cows without bulls." As the bulls often were very rough with their horns, the cows preferred to keep beyond their reach while carrying their unborn young.

The udder of the buffalo cow was small, compared with that of the domestic cow. Like the wild mare whose colt went with her under all circumstances, the buffalo cow had her calf at her heels, and therefore in one as in the other, the young having frequent opportunities to suck, there was no need for an udder of large storage capacity. Usually the horns served as a fair index of the age of a buffalo. After three years, each year added a ring around the base of the horns, as in domestic cattle. Judging by this, the horn began to break when the animal was about ten or eleven years old, the stubbing process continuing until death. The horns of cows often were misshapen, the deformity taking the form of a "crumple"—twisted, dwarfed in length, and much thickened at the base. The condition of the horns and teeth in old animals indicated a natural term of life of twenty-five or thirty years. A buffalo cow kept in a zoölogical collection in Paris is said to have been certainly known to be thirty-one years old when she died; and some of the old plains men declared that they had occasionally seen infirm and aged bulls that gave evidence in the condition of their horns and in other exterior respects of an age from thirty-five to forty years.

Aside from the necessity of plastering themselves with mud for protection from the attacks of hungry flies after they had shed their old coats, when their skins were almost bare, the buffalos had a fondness for wallowing in mire and rolling in dust, which is quite foreign to the tastes and cleanly habits of domesticated cattle. In many places on the plains traces of old "buffalo wallows" may still be seen. The animals enjoyed scratching themselves, and rolling on the ground chiefly was for this purpose; better scratching facilities being very scarce on the open range. They made an immense amount of trouble for the Pacific Overland Telegraph Company, whose line was built across the plains in 1861; making scratching-posts of the poles. These were light and not planted very deep, and therefore a few surges against one of them by a big bull, as he gratefully rubbed his side against it, would bring it to the ground. When a herd in its movements came to the line its individuals accepted the poles as conveniences placed there for their use and benefit, and in a short time several miles of telegraph line would be down.

In a few instances tamed buffalos have been induced to submit to the yoke, but their performances in drudgery have not been notably brilliant. Colonel Charles J. Jones trained a pair of seven-year-old bulls to work in harness. They were reasonably gentle and worked fairly well together, being put to practical service in drawing feed in the winter to other animals on the ranch, and in summer were used for plowing. They were driven with strong hemp-rope lines which, during the training stage, were attached to heavy forged iron bits in their mouths and run back to a windlass so arranged on the vehicle that the driver could control either of the two lines by turning one of the two cranks; every other method having failed to control the strong beasts. But finally the team became sufficiently tractable to be driven with the hands alone. A German farmer in the Tongue River Valley, Montana, had a pair of buffalo cows that are said to have been well-broken to the yoke, but subject to erratic moods. They are represented as having been strong, rapid walkers and capable of performing as much work as domestic oxen, but at times they were so uncontrollably headstrong and obstinate as to detract greatly from their usefulness. The particular event in their career on which their historian dwelt with special interest occurred when their owner was using them to haul a load of potatoes to town. In the course of the long drive the buffalos became very thirsty, and upon coming into sight of the water in the Tongue River they started for it on a straight line. The shouts and blows of the driver served only to hasten their speed, and when they reached the edge of the high bank they plunged headlong down without the slightest hesitation, dragging wagon, potatoes, and all with them, to the loss of everything except themselves and the drink for which they had gone. Several owners of likely young bulls trained them to draw carts, and in one instance in Montana a young bull was driven to a buck-board. But, as a rule, broken buffalos have been more interesting as novelties than useful as working animals, and since the steady-going, old reliable ox himself has gone out of fashion, there has been no incentive to train buffalos to do work that could be done better by oxen, which already know all about it.

Colonel Charles J. Jones and Two of His Catalo (Half Buffalo) Heifers. (*From a photograph.*)

The wild buffalos had little curiosity, and their stolid indifference to things they did not understand accelerated, as heretofore set forth, the destructive work of the still-hunter. They were without courage in the ordinary meaning of that word. Unconscious of their strength, their first and leading thought, when threatened by danger, was to take flight; though it was seldom that a bunch would run from wolves, as they had learned from long experience that if they stood by each other they could manage these sneaking prowlers. Their fighting when at bay was that of frantic desperation, though sometimes, but not often, running hunted buffalos would turn upon their pursuers and attack them. During the buffalo slaughter some of the hunters had narrow escapes from animals supposed to be dead, and there was a story from the northern range of one who was killed by an old bull whose tongue he had actually cut out in the belief that the buffalo was dead.

In temper, generally speaking, the wild buffalos were not vicious, but said to be less so than the old-time long-horn range-stock of Texas. The bulls did nearly all of their threatening and blustering and bullying-around in the breeding season, but at other times were not nearly so quarrelsome as the old-style Texas steers. If the buffalos had been free to regulate their lives entirely to their own liking, probably they would have lived in ease and indolence, taking the world as they found it and holding themselves aloof from all "movements" for the introduction of reforms. But as it was, especially in the closing period of their career, they were beset by many troubles, and the few survivors of the slaughter, from which the captive stock was derived, had learned within a few years to dread and fear man as the worst of all enemies. Perhaps it is to this late-acquired feeling toward mankind, combined with the effects of the unnatural restraint under which they live, that not infrequently makes some of the captive buffalos morose, ill-tempered, and dangerous. Of the disposition of the captives, Hornaday says ("American Natural History"):

"The majority of captive animals are reasonably tractable, but occasionally an individual becomes savage and dangerous, and requires either solitary confinement or shooting. The best place in which to exhibit a savage buffalo is in a museum. Full-grown males must be watched closely for signs of permanent ill-temper, and a savage buffalo should be treated the same as a tiger. Frequently the first serious sign of danger in a buffalo is the murder of a weaker member of the herd."

No doubt the Huguenots of Manikintown, Virginia, tried the experiment of crossing buffalos with domestic cattle soon after they had captured some of the wild animals in 1701, but, as we have said, we are without particulars of the results of their attempts to utilize the buffalo as a domestic animal. Domestic cattle very early became mingled in buffalo herds, and the occasional presence of a light-colored or whitish buffalo in the herds of the plains was explained as being due to Spanish or other domestic cattle, such as those which gave rise to the so-called "wild cattle" of the southern plains, coming into contact with the buffalos. It was said that some of the "wild" domestic stock became naturalized with the buffalos and took up the buffalo life.

Such an union of domestic cattle with wild buffalos occurred in the eastern part of the United States in a comparatively early period in the history of live stock in our country. Albert Gallatin, Secretary of the United States Treasury in President Jefferson's first administration, and later American Envoy to Russia, to England, and to France, in a paper published in the "Transactions of the American Antiquarian Society" three quarters of a century ago, described and discussed "the mixed breed of cattle from the buffalo and the European stock, formerly known in the northwestern counties" of the Virginia of his time, but which are now part of West Virginia. Mr. Gallatin referred to the breed as having once been numerous among the buffalos of northwestern Virginia, but as no longer existing in his day. However, nothing is known of the first appearance of these hybrids, nor of the source of the domestic stock which assisted in their production, though probability points to runaways from the settlements on the James River in Virginia as being the ones upon which the responsibility rests.

Robert Wickliffe, of Lexington, Kentucky, probably was the first man to take advantage of the buffalo's willingness to establish family relations with domestic cattle for an intelligent and persistent attempt to produce a satisfactory race of hybrids. In 1815 he began a series of elaborate and valuable experiments in cross-breeding the two species of animals, and of some of the results of his experience with, and of his opinion of the utility of buffalos, he said:

"I have broken them to the yoke, and found them capable of making excellent oxen; and for drawing wagons, carts, or other heavily laden vehicles on long journeys they would, I think, be greatly preferable to the common ox."

Mr. Wickliffe continued his experiments for upward of thirty years, but nothing of permanent value or importance grew out of them.

The present writer has been unable to learn that any other serious attempts to cross-breed buffalos and domestic cattle ever were made in the eastern part of the United States in early times.

In the West some of the hybrids occasionally were produced both before the annihilation of the buffalo herds had begun and while it was in progress, but it was not until it became apparent that the end of the buffalo's career as a roving wild animal was near at hand that systematic cross-breeding with a definite purpose in view began in that part of the country. The men who at great cost in time and money engaged in this work really had set themselves a dual task. On the one hand, they sought to preserve unchanged a few individuals of the picturesque *Bison americanus*, and on the other—and economically more important—they believed that a considerable strain of buffalo blood introduced into the herds of range cattle would solve a grave problem which at that time confronted the western cattle men.

From the time that the range-cattle industry had been extended into the parts of the plains country subject to severe winter rigors, northers, and blizzards, there had been frequent seasons in which the losses among range herds from cold and privation were disastrous. In moderate winters, when the snows were not very deep nor did not long remain upon the ground, and northers and blizzards did not rise to the furious stage, the range cattle got through in from fair to good condition. Usually the wind cleared large areas of the higher hand of snow and blew it into the lower places, leaving the grass sufficiently uncovered for the cattle to feed upon it. Even when the snowfalls were heavier and not driven by the wind, yet remained soft, the animals could, by rustling here and there, find some vegetation, and so manage to sustain themselves until a favorable change of weather brought better times. But when a deep snow came and blanketed the earth for weeks, during which the mid-day sun successively would thaw it sufficiently for the cold of the nights finally to convert it into a mass of ice that sealed up the pasturage, or when a howling blizzard came out of the north with its biting cold and driving sleet—the cattle aimlessly drifting with it, hungry and despondent, the luckless creatures perished by thousands and tens of thousands.

The buffalos could weather storms and survive cold and hunger that would work awful havoc in a herd of range cattle. Heavily clad with matted hair, the under part of which was almost fur-like, and with much-acquired and inherited experience, they were, with rare exceptions, able to wrestle and rustle through the trouble, sometimes floundering for days in body-deep snows, without a morsel of food, and come out victors in the hard tussles with Nature in her most severe moods. Furthermore, they would not drift with a blizzard-storm, but faced it boldly until it passed, if no sheltering ravine or cliff were at hand to shield them from its fury.

Half-Breed Catalo Cow.
(From a Report of the Smithsonian Institution.)

In those days of happy-go-lucky management in the range-stock business the cattle had to rustle their living from the wild pastures the year 'round, for no stores of hay or other forage were provided against emergencies in the winter season. It was thought then that the happy-go-lucky was the only way, and therefore the stockmen staked their cattle against the winter elements, and took their chances on the outcome which so often was determined by circumstances entirely beyond their control—a state of affairs that is almost unknown nowadays.

So the solution of the problem that we have mentioned as standing before the range cattlemen at that time seemed to be the production of a good beef animal that could fight the winter battles with Nature more successfully than their existing range stock had been able to do; their needs being specifically set forth in the following formula:

"(1.) We want an animal that is hardy.

"(2.) We want an animal with nerve and endurance.

"(3.) We want an animal that faces the blizzards and endures the storms.

"(4.) We want an animal that will rustle the prairies, and not yield to discouragement.

"(5.) We want an animal that will fill the above bill, and make good beef and plenty of it."

Cross-breeding with the buffalo appeared to promise an easy, happy, and complete solution of the problem—to meet and fulfil each of these requirements. The results that were expected by many men at that time to follow the introduction of buffalo blood into the range-herds are very clearly set forth in the following from an article by Colonel Charles J. Jones, published in the *Farmers' Review*, of Chicago, August 22, 1888:

"What we can rely on by having one-fourth, one-half, and three-fourths breeds might be analyzed as follows:

"We can depend upon a race of cattle unequaled in the world for hardiness and durability; a good meat-bearing animal; the best and only fur-bearing animal of the bovine race; the animal always found in a storm where it is overtaken by it; a race of cattle so clannish as never to separate and go astray; the animal that can always have a free range, as they can exist where no other animal can live; the animal that can water every third day and keep fat, ranging from twenty to thirty miles from water; in fact, they are the perfect animals for the plains of North America. One-fourth breeds for Texas, one-half breeds for Colorado and Kansas, and three-fourths breeds for more northern country, is what will soon be sought after more than any other living animal. Then we will never be confronted with dead carcasses from starvation, exhaustion, and lack of nerve, as in years gone by."

About that time the range cattlemen were roundly scolded by a gentlemen who is now recognized as our foremost authority on the buffalo for their lack of discernment in not having taken advantage long before of this ready-at-hand means of alleviating their troubles and putting an end to their distressing winter losses:

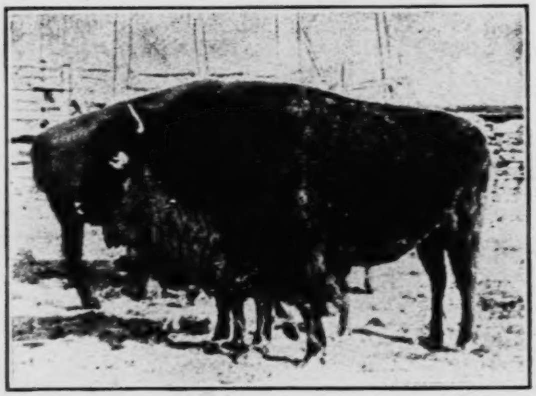
"Yet all this time the cattlemen have had it in their power, by the easiest and simplest method in the world to introduce a strain of hardy native blood in their stock which would have made it capable of successfully resisting a much greater degree of hunger and cold. It is really surprising that the desirability of cross-breeding the buffalo and the domestic cattle should for so long a time have been either overlooked or disregarded. While cattle-growers generally have shown the greatest enterprise in producing special breeds for milk, for butter, for beef, cattle with short horns and cattle with no horns at all, only two or three men have had the enterprise to try to produce a breed particularly hardy and capable.

* * * * * * * * *

"It has for years been a surprise to me that western stockmen have not seized upon the opportunity presented by the presence of the buffalo to improve the character of their cattle. Now that there are no longer any buffalo calves to be had on the plains for the trouble of catching them, and the few domesticated buffalos that remain are worth fabulous prices, we may expect to see a great deal of interest manifested in this subject and some costly efforts made to atone for the previous lack of forethought."

The efforts indeed were costly, and a great deal of interest in them was manifested by stockmen as well as by many others. The experiments required not only intelligence and zeal, but close familiarity with the habits and mental characteristics of the wild animals that were made their subjects. Furthermore, however favorable the ultimate results might prove to be, the experiments were of a kind thoroughly to be made only by men whose circumstances in life and interest in the proposition combined to enable them to regard with indifference the financial loss that inevitably would attend their earlier stages.

While the hybrid animals were bred at various places in our range country, the two men who have prosecuted the experiments with the greatest persistence and the largest results are Charles Goodnight and Colonel Charles J. Jones. Mr. Goodnight had, as we have said, begun breeding buffalos in captivity (at Clarendon, Texas), late in the preceding decade, but Colonel Jones had not acquired the first of his wild stock until the spring of 1885.



Catalo Cow, Three-quarters Buffalo.
(From a photograph.)

As the merciless buffalo-hunters had by that period left alive only a few fugitive small bands of buffalos here and there over the range country, Jones had a strenuous time in getting together his foundation herd of wild stock. It was then the general belief that it would not be worth while to attempt to subdue full-grown wild animals to a tame existence in a fenced pasture, and that of these only the sucking calves would submit to captivity. But Colonel Jones had thought that the cows could be reconciled to such a change of life, and therefore had determined to capture some of these as well as young calves. The largest bunch of wild buffalos that had been left in the southern range country at that time—one to which we have referred heretofore—was roaming in the Pan Handle region of Texas.

In the spring of 1884 Jones made an expedition into the Pan Handle to capture some of the cows and calves of this band, but returned empty-handed. In 1885 he tried it again, and took eleven calves, of which six lived. In the spring of each of the succeeding three years he made a foray into the Pan Handle country, getting a net total of thirty-seven calves in 1886 and 1887, but no cows. His expedition of 1888 was exceptionally well organized and equipped for his purposes, and it captured seven calves and eleven adult cows. The latter were run by relays of horsemen for several days, thus being kept on the move until they were physically exhausted, when they were roped, thrown, and hobbled. But all this turned out to be wasted effort, and Jones soon learned that the wild buffalo cow would not be taken into the comparatively monotonous conditions of life on a ranch. In an account of this capture given by Colonel Jones in Inman's recent (1899) history of his active and adventurous life, and from which some of the data embodied here were derived, he says:

"One-half died within twenty-four hours after being hobbled. They usually took fits, stiffened themselves, then dropped dead, apparently preferring death to captivity. It appeared to me that they had the power to abstain from breathing. We worried along with the remainder, but they eventually died before arriving at my ranch in Kansas."

However, by the fall of 1888 Colonel Jones had a herd of 57 full-blood buffalos in good condition and living in a fair state of contentment on his ranch near Garden City. As heretofore mentioned, he purchased in November of that year the entire Bedson herd, of Stony Mountain, Manitoba, consisting of 70 full-bloods and 13 half-breeds, and added these to his home herd. This transaction made him the owner of 127 full-blood buffalos, the largest herd then in captivity.

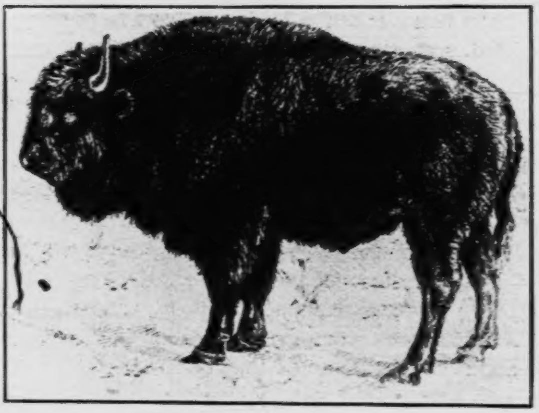
The cross-breeding of captive buffalos and domestic cattle was begun with great enthusiasm. It was confidently believed by many men that a hardy and excellent beef animal that soon would characterize the herds of cattle on the great ranges would be the result, and that in addition to their beef value their hides would sell for robe purposes for nearly as much as the market value of an ordinary domestic cow or steer.

The need for a distinctive name for the new variety of animals was felt from the start, and Colonel Jones gave them the very appropriate one of "Catalo," from the first syllable of "cattle" and the last three letters of "buffalo" (cat-alo), thus suggesting their origin in a single and highly agreeable word.

The half-breed catalo is larger than either of its parents; the cows weighing from 1,200 to 1,500 pounds. A male in the Bedson herd, that unfortunately was made a steer when young, was butchered at five years of age and dressed 1,280 pounds; and a half-blood cow in the Jones herd, six years old, weighed about 1,800 pounds.

The quarter and the three-quarters buffalo are not so large as the half-blood, being about the same size as ordinary cattle. The seven-eighths and the fifteen-sixteenths buffalo are of buffalo size, and the small strain of domestic blood scarcely changes them in form and color. The coat of the three-quarters and seven-eighths buffalo makes very fine robes, the furry hair being perfectly compact; and on some of these animals, bred from the black strain of cattle, is about as handsome as that of the black beaver. The hair of the catalo is evened up over the body; that is, it is not so long on the fore-parts as on the buffalo, and rather longer on the hind-parts. Some of the half-bloods are said to be excellent milkers, yielding a fair quantity of milk which is comparable in richness to that of the Jersey. The nearer they approach the full-blood buffalo, the less the quantity produced, but it is said to be correspondingly richer; the milk of the full-blood buffalo cow being richer than the milk of the Jersey.

Usually the catalo is a quiet animal, but prefers that men keep hands off, yet at times it is inclined to be cross; the cows when they have young calves at their sides being exceptionally so. They are good feeders, have excellent appetites, and are easily kept in flesh, though fed on any kind of bovine provender. They inherit more of the traits of the buffalo than of the domestic cattle, and a peculiarity about them is that all of them have "solid" colors. That is, their coats throughout are solidly either seal-brown, black, gray, brindle, or white; a spotted or otherwise variegated catalo being said to be unknown. The fact that some of these animals are white seems to confirm the belief that the occasional white wild buffalo was from a cross with runaway domestic cattle. Like that of the buffalo, the voice of a catalo calf is a piggish grunt that sounds queer coming from such an animal. The calves are practically humpless when born, the shoulder-bunch not beginning to make its appearance until the creature is two or three months old. Crosses have been made with all nearly of the different breeds of domestic cattle, but the Galloway cow is said to have proved the safest and most satisfactory, while the coat of the offspring is exceptionally fine for robe purposes.



Young Half-Breed Catalo Bull.
(*From a Report of the Smithsonian Institution.*)

Catalos have been wintered on the range without any artificial food or shelter as far north as Lake Winnipeg, where they withstood the cold when the temperature is said to have reached fifty degrees below zero. They face the blizzards, but at such times the domestic mother of a catalo calf will drift with the storm, leaving her brave little offspring facing the other way and staying with its hybrid companions.

The crossing generally has been made with a buffalo bull and a domestic cow, and the offspring breed readily between themselves as well as with the two parent strains; the females especially, which predominate in the births. Breeders say that it is difficult to secure a half-blood male catalo; Colonel Jones having stated in 1899 that up to that time he had never been able to raise but one half-breed bull and that he was accidentally killed before becoming serviceable. The hind-parts of the half-breed catalo cow are conspicuously larger than those of the cow-buffalo. The pelvis is heavier, broader, and more cow-like, therein being a decided improvement upon the small and weak-looking hind-quarters of the wild species. The hump is quite noticeable, but not nearly so high as in the full-blood buffalo cow; while the horns are decidedly cow-like in their size, length, and shape.

The hump, together with several other marked characteristics, proclaim the buffalo in every line of both sexes of these animals, and therefore it is not always that even good judges can detect a strain of domestic blood in a hybrid calf less than one year old. A few years ago four experienced men inspected and passed, as a full-blood young buffalo, a calf that proved to be a year or so later a cross-breed, one-fourth domestic. But in the adult animals the presence of domestic blood is betrayed in the shorter hair on the fore-quarters and the longer on the hind-parts, in the lighter and longer horns, and in the lower hump and the higher and heavier rump.

In all respects the catalo is a fine and most interesting animal, but up to the present time it has not become a practical proposition among market cattle. As to the range herds, no way has been found to inject a strain of buffalo blood into them and keep it there, and therefore at no time since catalo-breeding began have these animals had any influence of consequence upon range cattle. Furthermore the need that once was felt for such an influence may be said no longer to exist. A remedy for many of the old-time troubles of the range stockmen, and a preventive to their heavier winter losses was found in making hay while the sun shone and holding it in reserve for the emergencies of winter, in providing shelter for their cattle, and in a general abandonment of the happy-go-lucky ways of doing things. With the inauguration of these changes they found that the kind of stock they really needed on their pastures was the best of the highly improved breeds of domestic cattle, and these are now doing for the cattle industry in the West all that was expected of the catalo around fifteen years ago, and much more.

Still interest in the catalo has not died out, nor has hope for a useful future for it been abandoned. While its utility has not been practically demonstrated, it does not stand wholly discredited among western stockmen, some of whom think it may yet come "to the front." Its early and always steadfast friend, Charles Goodnight, who continues to breed it and believe in it, expects it ultimately to become a permanent and valuable member of our group of live-stock animals. In a letter written to the present writer early in the autumn of 1904 he said, with a view to the future:

"The breeding of catalo is not in the stage it should be to go into history, although I am now satisfied a valuable grade of cattle will result from this crossing."

But on the other hand Mr. Hornaday, in his "American Natural History," has this to say:

"Interesting as has been the experiments of Mr. C. J. Jones and others in the cross-breeding of buffaloes and domestic cattle, it is now quite time that all such experiments should cease. It has been proved conclusively that it is impossible to introduce and maintain a tangible strain of buffalo blood into the mass of western range cattle. This is admitted with great regret, but inasmuch as it is absolutely true, the existing herds of buffalo should not be further vitiated and degraded by the presence in them of animals of impure blood."

Several western newspapers recently have told of this ranchman and of that one being about to engage in breeding catalos for their robes and beef, but none of these statements appears to be well founded. In one of these publications the following ridiculous nonsense was seriously printed in connection with its reference to an alleged "new enterprise" of this character:

"The genuine buffalo-robe market has been practically cornered by astute Eastern speculators, who have accumulated large stocks and are holding them until the price of robes has reached a high figure. Already hides have increased in value to a marked degree, and a good buffalo robe cannot be secured at a reasonable price.

"The cost of producing the hybrid hides is not more than that of an ordinary cow hide, once the hybrid herd is started. The hybrids breed without a return to either of the parent forms, and a two-year-old produces a robe that is large and well wooled. The flesh of the hybrid animals is in great demand, closely resembling that of the real buffalo, with the toughness of buffalo meat absent. The high flavor of buffalo meat is toned by the beef strain, and the steaks are said to be delicious."

Perhaps the amusement these gems, published in March, 1904, will afford the reader may excuse, if it does not justify, us for having quoted them.

As to the buffalo, it is plain that whatever future lies before the species it will come to pass within large enclosed preserves under watchful protection. The 1,119 that were in captivity in March, 1903, probably had increased to above 1,200 in 1904. The greater number of these is in large private game preserves and in public zoölogical "gardens." But in the latter there is little hope for the buffalos. A high authority says that "if the perpetuation of the species depend solely upon the efforts possible in zoölogical gardens and parks, within twenty-five years the species would become extinct. Even in a range of twenty acres, the largest in any zoölogical institution, the buffalo becomes a sluggish animal, and rapidly deteriorates from the vigorous standard of the wild or semi-wild stock." The largest herd existing at the present time under these conditions is that of the New York (city) Zoölogical Park, which was presented by the late William C. Whitney from his October Mountain preserve. In 1903 it numbered 34 head of pure-blood animals, representing all ages. The largest in an enclosed preserve is in Blue Mountain Park, New Hampshire, established by the late Austin Corbin. It numbered 128 head of pure-blood animals in 1903, and is increasing slowly.

It is frequently said that "buffalos breed in captivity with perfect regularity and success." As an unqualified statement this is untrue, as is proved by the slow increase of captive herds, although they do not pay tribute to wolves nor lose through other vicissitudes of the wild life. In very large enclosures, remaining practically in a state of nature, and in which they could have a measure of the freedom of action enjoyed by their ancestors, no doubt they would reproduce at a fair rate. But in close confinement they are not prolific. The birth of four calves in the herd of Cody's "Wild West Show" while it was in London in 1888, as heretofore mentioned, might seem to indicate great fertility in confinement. But that herd was a fresh one, the entire group that had previously been with the "show" having died of pleuro-pneumonia in the winter of 1886-87 while the outfit was at Madison Square Garden, New York City. When buffalos breed in close confinement there is said to be a marked tendency toward the preponderance of males among the calves, a result which by repetition would, of course, lead to the extinguishment of the species.

A Bunch of Half-Breed (Buffalo-Hereford) Catalo.
(From "The Cattle Industry of Texas.")

If there were no other causes of deterioration of captive buffalos, continued in-and-in breeding would be sufficient to work their extinction within a period comparatively short, although its progress may be so insidious that its effects might not soon become apparent to the casual observer. But the end from this cause alone is only a question of time; and as Nature measures time, the period cannot be a long one.

Among some of the buffalos on public exhibition, physical changes sufficient to be noticeable already have appeared. These are manifested in a "striking difference in size [smaller] and back-outline between a buffalo born on a great range and another of the same age born of a line of closely confined ancestors." In captivity they do not develop so finely as in the wild life, and with their loss of liberty they become comparatively tame-looking creatures. Lack of the vigorous and constant exercise that was enforced upon their ancestors prevents the development of bone and muscle that made the wild buffalo in his unbounded freedom the remarkable animal that he was. The sluggish life in captivity also has developed a tendency toward a shorter body between the hips and shoulders and to make it more rotund, while the muscles of the shoulders and the hind-quarters, especially the latter, become flabby. The captives have, furthermore, taken on the habit of "humping up" in bad weather, as most horses and cattle do when exposed to rain or driven snow. The tendency of this is to make the buffalo's hump look lower and to alter the outline of the back. Buffalos in the wild life rarely would assume such an attitude of dejection and misery.

Perhaps in no feature are the effects of the change from natural conditions to those of close captivity more noticeable than in the eyes of some captive buffalos. In the wild animals the eyes were always deeply set, well protected by the edge of the bony orbit, and perfect in form and expression. The lids were firmly drawn around the ball, the opening usually being so small that the white part of the eyeball was entirely covered, while the whole form and appearance of the organ was as shapely and as pleasing in expression as the eye of a deer. Among the captives changes have taken place with respect to the eye. The muscles supporting and controlling the eyeball seem to have relaxed and thickened, while the ball protrudes beyond its normal plane, showing a circle of white all around the iris, bulging out in an unnatural way, and giving the animal something of the "sick-calf" expression. Some western breeders have said that captive buffalos depend more upon their eyesight than the wild ones did. For detecting the proximity of enemies the latter trusted very largely to their sense of smell, and when the wind was favorable could detect the approach of intruders upon their peace and comfort at surprisingly great distances. It is said that with this increasing dependence of the captive upon their eyes the highly refined sense of smell characteristic of their ancestors becomes correspondingly dull.

Captive Buffalo Bull in the City Park at Denver.
(From a photograph.)

Captive buffalos on public exhibition in zoological collections have, in one particular, at least, very thoroughly adjusted themselves to the conditions under which they live, for they have learned to pay little or no attention to the swarms of people who come to look at them. Occasionally an old bull will resent this impertinence by making a lunge toward the enclosing fence, but usually the herd loafs on in indifference. The small number on ranches in the West generally submit without protest to being driven like cattle by a mounted cowboy. Yet they will not allow themselves to be driven into a close corral, barn, or other small enclosure unless a domestic cow or steer be put in the lead. They can be "tolled" in by salt or by some seductive food, but after these enticements have been disposed of they show a determination to get out again.

In reasonably large pastures enclosed by fairly good fences the captives rarely manifest a disposition to attack these barriers in attempts at escape; yet if they were not so dull-witted they might know that nothing less than a stout wall could stand before their butting-strength or the impetus of their heavy bodies when on a run. Colonel Jones has said that after having tried several kinds of fences he stretched five or six strands of barbed wire to fair-sized posts a rod apart with a stay between, and had no further difficulty in restraining his buffalos; having kept from 50 to 100 head on 640 acres (a square mile) of land so fenced for more than a year at a time without having had a single one of them go through the wires.

Buffalos naturally are heavy feeders, and those in captivity retain the fondness of their race for plenty of eating, taking kindly to corn and all other grains, as well as to root crops, their appetite never failing until their capacity has been filled to its limit. In most of the public zoölogical "gardens" that have buffalos the over-liberal feeding results in the animals often eating too much, which adds to the sluggishness due to the general effects of the close restraints under which they live in such places.

It is highly probable that the "public" of two or three generations hence will have to turn to the work of scientifically trained taxidermists to see what the majestic American buffalo looked like in his free life on the Great Plains of the West, for it seems certain that, although the species may not be absolutely extinguished by that time, the few buffalos that are now running wild will have passed away long before. Therefore, the sole representatives of this deeply interesting race of animals that then may be living will be of the captive kind; and it is also highly probable that these will have become so deteriorated in general character, and in actual physical appearance as well, as to poorly present the qualities and aspects of their ancestors.

Having this in mind in 1886, after the destruction of the great herds of buffalos in the West had been proclaimed, Professor Spencer F. Baird, then Secretary of the Smithsonian Institution, determined to send a party into the field at once to find wild buffalos, if any still were living, and in case some were found to collect as many specimens as possible. Since it seemed extremely uncertain whether any other institution or any private person would have opportunity to collect many specimens before it became too late, Professor Baird decided that the Smithsonian Institution should undertake the task of providing for the future as liberally as possible. For the benefit of the smaller scientific museums, and for others that would come into existence in after-times, it was resolved to collect at all hazards, if such a number of buffalos could be found, between eigthy and one hundred specimens of various kinds, of which from twenty to thirty should be skins, an equal number should be complete skeletons, and of skulls at least fifty.

The Smithsonian expedition, with Mr. William T. Hornaday, then chief taxidermist of the National Museum at Washington, in command, went to Montana to carry its purposes into effect, and before the close of that year had fulfilled them. Some scattered small groups of buffalos then were lingering in the region midway between the Yellowstone and the Missouri Rivers and northwest of Miles City. Leaving the Northern Pacific at Miles City, the Smithsonian party entered that country and with much hard labor extending over several months made a collection of great value.

The net results in buffalo materials were twenty-four fresh skins entire, one head skin, eight fresh skeletons, fifty-one dry skulls, and two fœtal young; a total of ninety-four specimens. Twenty-five buffalos were taken: ten old bulls, one young bull, seven old cows, four young cows, two yearling calves, and one three-months calf caught alive, but which died about two months later in Washington. The skins were in fine condition, and in their present mounted form in the National Museum constitute groups which, for fidelity to nature and skilful taxidermy, are not surpassed and perhaps not equaled by any other examples of mounted buffalos in existence.

Between the trained scientific taxidermist and the "animal-stuffer" there is a wide and deep gulf into which the latter should be thrown. The skin of a beast or of a bird rammed full of any sort of rubbish that may be at hand makes a sorry figure of the creature at best; but in many instances the "animal-stuffers" have afflicted the people with actual atrocities in their manipulation of buffalo skins, the distorted objects they have produced being but little better than caricatures of the fine animals they purport to represent.

D. B. Gardner.

A third of a century ago, west Texas was an immense area, little known by white men, and traversed only by the overland stage route and a few Government trails leading past the frontier military posts. The pioneer cowman had not yet ventured on the high plains of Texas, where now are located scores of flourishing towns. Even the region of the Panhandle was little known, except to trail-men and a few brave settlers who foresaw its possibilities as a grazing country. Ft. Richardson, in Jack County, Ft. Griffin, on the Clear Fork of the Brazos River, and Ft. Concho, farther south on a river of the same name, were the principal military headquarters, maintained by the general Government, after the close of the Civil War, as a means of protection against marauding bands of Indians. West Texas was a great open range.

The eastern half of Texas was populated with three-quarters of a million of people slowly recovering from the effects of a long and devastating war. A tide of immigration had set in from States east of the Mississippi River, and almost daily long lines of wagons, drawn by horses or oxen, and hundreds of men, riding and on foot, could be seen moving sturdily forward with faces towards the setting sun. This tide assisted in an important degree in extending the frontier line, reaching out into the grass-covered plains and wooded valleys, establishing homes, founding settlements, and opening up a region that has become noted as the greatest cow country in the world. Experienced cowmen of south Texas also came upon the plains, and, during the period that has elapsed, west Texas and the Panhandle have produced many of the greatest cowmen known in the annals of the industry. The circumstances were favorable for the organization of incorporated companies; and men, by virtue of ability and practical knowledge, became the managers of companies whose names will always be recognized as a part of the history of the live-stock industry.

The Pitchfork Land & Cattle Company, with its property at the headwaters of the Wichita River, in King and Dickens Counties, is one of the organizations that has established a permanent record. Under the management of D. B. Gardner, this company has experienced many years of successful administration, and is in condition to adapt itself readily to probable changes in the industry.

The company owns a tract of 100,000 acres of well located land in one body, watered by natural streams and springs, supplemented with tanks and bored wells. It also leases a large acreage, and, having possession of abundant bottom lands, is in a position to conduct extensive operations in raising the rough feed for cattle, if so desired. The headquarters of the Pitchfork Ranch are located in a beautiful valley seventy miles from the Fort Worth & Denver City Railway at Childress. Here Mr. Gardner lives the ideal life of a cowman, surrounded by every comfort and convenience that is to be desired upon the range, and dispensing a hospitality which is a pleasing characteristic of the cowman wherever he may be found. The ranch, which has been the principal scene of his operations for more than twenty years, is near the middle of the great cattle country It has an elevation of 2100 feet, and possesses the natural advantages of climate and grasses which cattlemen most desire. Any possible lack of water for live stock has been forestalled by the boring of wells, and the addition of forage which can be raised upon the ranch, places the business on an enduring basis. Apparently the time has arrived when no more drifts, no more big "die-ups," and no more great losses will be experienced by cattle companies of west Texas. Milo maize, kaffir corn, sorghum, and Johnson grass, in connection with the windmill, have solved the problem of cattle-raising on the high plains of Texas.

Such are the ideas of Mr. Gardner, and it is doubtful whether any man in Texas is better qualified to express an opinion upon the subject. Born and reared in Alabama, Mr. Gardner began his business career in Texas, and has devoted the principal years of his life to a study of the range and its possibilities. He brought to the business a judgment that had been developed under trying conditions. Of him it may be truthfully said that his course has been along the golden path that leads to the temple of wisdom—the trying lessons of his youth prepared him for the responsibilities that were presented in the untrodden wilds of west Texas. There he found his "vocation," and right ably has he performed it.

Daniel Baldwin Gardner was born February 25, 1851, on a farm near Reform, in Pickens County, Alabama. His grandfather and father were natives of South Carolina, and the family, in the male line, is of English descent. Daniel Gardner, the grandfather of D. B. Gardner, served in the war of 1812, and was married to Elizabeth Taylor September 24, 1812. The couple had seven children, one of whom was Henry Kenard Gardner. He was born July 14, 1826, and was married in 1850 to Frances Indiana Hodo, who was a native of Talbert County, Georgia, where she was born September 13, 1831. There were five children in the family: Daniel B., Meredith T., Nancy E., Augustus K., and Amelia. Nancy and Augustus are deceased. Mr. Gardner engaged in the planting and milling business in Pickens County, Alabama, but in 1859 he moved to Chickasaw County, Mississippi. He enlisted in the Confederate army, and at the close of the war held a commission as lieutenant of cavalry. A slave-owner, he lost his slaves in the war, and returned home in April, 1865, to find that his live stock had been driven off and mills which he owned had been burned. He died December 28, 1878, after repairing in a large degree much of the loss he had sustained. Mr. Gardner was a man of high standing in the community, a man of good business qualities, and his death was a severe loss to his family and the region in which he lived. Mrs. Gardner moved to Texas in 1879 and settled on Bear Creek, Parker County. Her death occurred May 4, 1895, from the effects of a burn.

Up to the time of the Civil War, D. B. Gardner possessed all the advantages that could be desired in a well-to-do family of the South. The war, however, put an end to many plans of his parents concerning their eldest son, and the unsettled conditions, the raids of Federal troops into Mississippi in 1864, and the constant excitement of the conflict interfered seriously with the school studies of the lad. At one time the opposing forces met and fought in the yard of the Gardner home, and for months, although too young to be enrolled as a soldier, D. B. Gardner served with various detachments of Confederate cavalry. As a growing boy he assisted in concealing property from bands of Federal soldiers who confiscated live stock, food supplies, and valuables wherever they could be found. The boy operated in the summer of 1864 at Okolona, Miss., with the Home Guards, made up of old men and boys, and in December of the same year witnessed the latter part of the fight at Egypt, Mississippi, in which General Gholston lost his arm. At the close of the war, he was in Alabama. The beginning of the war, to his youthful imagination, partook of the nature of a great picnic or excursion,as the sad features were not at first disclosed to his view. The real tragedy developed later in the desolated homes and the general prostration which followed the long suspense.

Few countries have ever passed through a more trying period than the South was obliged to endure during the years immediately succeeding the Civil War. Daniel B. Gardner was only slightly past fourteen years of age when the survivors returned home and the father and son were restored to the family. For several years he was fully engaged in assisting to maintain the family, but in 1869 he attended Commercial College at Poughkeepsie, New York, where he completed a course in bookkeeping. He filled a position as bookkeeper in Mississippi until 1871. Then, at the age of twenty years, he decided to seek his fortune in Texas.

General Ross, a prominent commander of the Confederate service, was a Texan, and it was from him that D. B. Gardner, a boy on his father's plantation, first became interested in Texas, the great plains, and the free life of the cattle range. The general was frequently a guest at the Gardner home, and his stories of Texas aroused a desire in the young listener to witness the scenes so graphically described. The parents of Daniel, who had now arrived at a time of life when it appeared important to plan for the future, interposed no objection to the trip, and the son accordingly joined the movement westward.

At the time of his appearance upon the range, D. B. Gardner was ripe for any honorable undertaking that gave promise of reasonable returns. A fine rider, a good rifle shot, in the full glow of health, and with all the enthusiasm of youth, he was a type of the young men who conquered the West. No difficulty appeared too great to be overcome and no adventure but had its allurements. He was on the lookout for something to turn up, but did not stop traveling westward until he reached Weatherford. This town was an outpost of civilization and an important rendezvous of cattlemen. There the future cattle manager met E. L. Walker, a ranchman, with headquarters on the Clear Fork of the Brazos River, eighteen miles from Ft. Griffin. He engaged as a cowboy, and the ride northward to the cow camp was his first introduction to the great cattle country. He was delighted with the life, and determined to make his home in west Texas. The people of the State extended a cordial welcome to young men of the stamp of D. B. Gardner. They felt that the great need of the country was settlers, and the most desirable settler in the world was the son of an old Southern family.

In the summer of 1872 Mr. Gardner entered the service of J. C. Lynch, an old-time cowman, of Shackelford County, and there gained his initial experience upon the cattle-trail. He accompanied a herd of cattle belonging to Messrs. Lynch & McAnulty to the range on the Apishapa River in southern, Colorado Territory. The trail reached the Pecos River at Horsehead Crossing, and followed the route of the Goodnight & Loving herds by Ft. Sumner. Mr. Gardner was a ready learner, and he soon gained a knowledge of cattle which has been of great service to him in many emergencies. He has witnessed every phase of trail experience. The trip over the trail was one of the most interesting experiences in the early life of Mr. Gardner. His work being accomplished, he returned to Ft. Worth, where he accepted a position for several months as agent of the El Paso Stage Company.

In the spring of 1873, General J. J. Byrne organized a series of parties to locate lands in west Texas for the Texas & Pacific Railway. The railway company had been given grants of land by the State Legislature. A separate party was placed in advance to locate prior grants, and Mr. Gardner, tiring of the routine of the stage office, engaged with the surveying corps, and soon found himself far out on the plains with the advance party. The work required many months, and the surveyors endured great hardships from scarcity of supplies and danger from Indians. It was necessary for the men to go about their work armed and to husband every resource, guarding constantly against Indians night and day. At one time in 1874 Mr. Gardner and a companion found themselves in dangerous proximity to prowling Indians near old Ft. Phantom Hill, Jones County. Under cover of night they escaped by riding for their lives. On the morning of December 24, 1874, the Indians attacked a party of four Mexicans, thinking they were the surveyors, and killed all of them. The party Mr. Gardner was with rebuilt the initial monument of the one-hundredth meridian where the line crossed Red River. The selection of lands for the railway required the re-establishment of the boundary line between the Texas Panhandle and Indian Territory. The teams giving out on this expedition, and the food being exhausted, the party was obliged to undertake a trip of two hundred miles afoot across the country to Ft. Griffin. This was accomplished safely. At the close of two years he decided to return to the more independent life of the range, and in 1875 he resigned to engage as cowboy with J. S. and D. W. Godwin. General Byrne, the head of the survey, was afterwards killed by Indians as he was traveling in a stage coach.

The ranch of the Godwins was located at the Round Timbers on the Brazos River, and for two years Mr. Gardner remained on the ranch, holding position as foreman of the ranch during the last eighteen months of the time. He had noted the growth of the range business since his first acquaintance with the range, and he saw larger possibilities in the future. Although only twenty-five years of age, Mr. Gardner now had the ability and experience to direct others—an accomplishment highly to be desired by any man. In fact, it is almost impossible to advance in any branch of business without the ability to direct. The herd was sold in 1877, and the same year Mr. Gardner formed a partnership with D. W. Godwin. They engaged for a time in the livery and sale stable business in Ft. Worth, but in 1878 a partnership was organized by Col. J. S. Godwin, D. W. Godwin, and Mr. Gardner, and the firm bought the "WOO" herd of 1200 cattle, ranging near Ft. Griffin. Mr. Gardner gave notes for his share of the transaction, took charge of the ranch, and in 1881 the cattle were closed out at a handsome profit for all concerned. D. W. Godwin withdrew from the firm, and the two remaining partners purchased the Pitchfork herd in King and Dickens counties. The year following, Colonel Godwin retired and was succeeded by E. F. Williams, a large capitalist of St. Louis, who was a warm friend of Mr. Gardner. In 1883 an interest in the herd was purchased by A. P. Bush, Jr., and the Pitchfork Land & Cattle Company was organized to deal in lands and cattle. The officers were: A. D. Brown, president; E. F. Williams, vice-president; A. P. Bush, Jr., secretary; and D. B. Gardner, general manager. Mr. Brown is president of the Hamilton-Brown Shoe Company, St. Louis, Missouri, the largest shoe house in the world. Mr. Bush retired in 1884, and Mr. Gardner has since filled the position of general manager and secretary. The death of Mr. Williams removed a highly valued member of the company, whose place is filled by Mrs. Williams. Mr. Gardner has interests separate from the Pitchfork Land & Cattle Company, one of which is an improved farm of 2000 acres on Bear Creek in Parker County, near Ft. Worth.

Mr. Gardner was present at the original meeting of cattlemen at Graham, Young County, in 1877, from which the Texas Cattle Raisers' Association has developed, and was a charter member of the association. He has taken a lively interest in the affairs of the organization, and for twelve years past has been a member of the Executive Committee. He is a member of the Masonic body, belonging to the Chapter and Commandery at Albany, Texas.

No man gains a more attentive hearing upon questions pertaining to the cattle industry than Mr. Gardner. Never radical in his views and always fair to both sides in a controversy, he is essentially an arbiter, whose decisions gain prompt acceptance.

On March 9, 1887, Mr. Gardner was united in marriage at Paris, Tennessee, to Miss Sula Pope Ellison, daughter of Col. and Mrs. Robert L. Ellison. The deepest sorrow of Mr. Gardner's life was the death of his companion at Ft. Worth, May 8, 1889. A promising son, Sula Ryan Gardner, now fourteen years of age, is attending school at Ft. Worth.

Mr. Gardner spends the larger part of each year on the ranch, but he is a welcome figure at conventions of live-stock men, and his duties require him to travel extensively. He is a student and a reader of the best books, and his library at the ranch, far out on the plains, is to him a constant source of pleasure. His study of nature has revealed to his mind many interesting facts not found in books, and he is ever open for the reception of new ideas. To him the study of animals and of man is one of the most interesting studies in the world.

"The true standard of a man is his character," said Mr. Gardner, while speaking of his observations of thirty years past. "I have often thought of the cowboy and the splendid traits he developed upon the range—traits that it is always a pleasure to contemplate. The self-sacrificing principle of the cowboy is the one that made a strong impression on me. His devotion to the interest of his employer often caused him to face death itself, and he never complained. In times of winter storms or of stampedes at night, the cowboy was always at his post, doing everything within his power to protect the property entrusted to his care. It was not the pay he was receiving that induced him to undergo hardships, for he could have readily found an easier position. It was his sense of honor and duty. The environments of the present times do not develop the character of the old-time cowboy. There was something about the life on the range that produced men capable of discharging the responsibility. Many a night I've seen the cowboys leave the camp separately, each with a bunch of horses to be hoppled out in some secluded spot—perhaps miles from the camp—so that if the Indians stampeded one part of the horse herd they would not get all the horses. These faithful men slept on the ground near the horses, or guarded all night to ward off possible danger. It is a pleasure to speak in praise of the real cowboy.

"When I first saw west Texas there were no fences, very little of the land was owned by private individuals or companies, and the size of any man's range was limited only by his ability to stock it with cattle. A little later, the practice of line-riding was introduced, and men were hired whose duty it was to ride around the limits of the range and turn back cattle that had crossed into a neighbor's domain. The line-rider has been superseded by the fence-rider, whose duty it is to see that fences are kept in repair. The wire fences, however, are presenting an obstacle to driving cattle to the railroad which was not dreamed of in an earlier day. Many large ranches are several days' journey from the nearest railway shipping-point. It is necessary to drive the cattle through narrow lanes, and it is seldom that water is available in these lanes, much less grass for grazing. As the country is more thickly fenced, the difficulty of reaching the railway becomes greater. No satisfactory solution of this problem has yet been presented.

"The reduction of the range has also made it necessary for many cattle-raisers to limit their yearly production of cattle and to pay more attention to the grade of the cattle. With us, we have found it best to make use of both Shorthorn and Hereford males. The Shorthorn gives the bone and the Hereford produces a hardier animal. I prefer the blood of both breeds in the herd, and have found it more practical to leave the males in the herd during the entire year rather than to keep them apart at certain seasons."

"Do you believe the Texas Cattle Raisers' Association could control the market for cattle?" he was asked.

"Not under the present organization of the association," was the reply. "The association is not an incorporated body, and its members cannot be compelled to do anything unless they desire. As a voluntary organization, it would be impossible to prevent members from selling their cattle as they see fit, even if the directors of the association decided otherwise. The business of the association has principally been to restore stray cattle to their owners and to provide, as far as possible, against theft of cattle. The association is able, also, in some degree, to influence freight rates. If an attempt is made to control the marketing of cattle, it should be through an independent organization called into existence for that purpose."

Mr. Gardner is a firm believer in the old saying that if a man aims at nothing he will achieve nothing. When a boy, Mr. Gardner could shoot a rifle so straight that he could hit a squirrel in the head almost every time. He believes in aiming at the stars, but his advice is: "Keep the feet on the ground. Maintain the ideal, but don't lose sight of the practical." His long experience has taught him that success is a plant, capable, after it has once taken root, of a high degree of cultivation; that the little plant, tenderly watched and watered, may grow into a beautiful tree, which becomes not only a delight to the eye, but a welcome resting-place for the dusty and weary traveler.

The Re-Stocking of the Plains—"The Great American Desert."

The Advance of Range Herds of Domestic Cattle.—Number of Range Cattle in Comparison with that of the Buffalos.—The Plains as Grazing-Lands.—Explorer Pike's Estimate of Them.—"The Great American Desert."—Extravagant Old-Time Notions of Its Extent and Character.—Work of Map- and Picture-Makers.—Senator Webster's Opinion of the Western Country.—Public Disapproval of Pacific Railroad Propositions.—Persistence of Popular Errors.—Misplaced Sentiment with Regard to the Indians.—The Reservation System the Salvation of the Red People.—Indian "Rights" to the Country.—The Attitude of the Pioneer Western Stockmen Toward the Indians.—Their Avoidance of Aggressive Acts.—The Indians' Lack of "Attachment to the Soil."—Their Part in the Extermination of the Buffalos.—Slender Foundation of the "Desert" Beliefs.—Greater Productiveness of the Semi-Arid Plains as Pasture-Lands.—Their Present Capacity for Supporting Live-Stock.—Ratio of Cattle on Western Ranges Compared with that in Agricultural States.

Our great plains did not lapse into comparative solitude upon the disappearance of the buffalos from the vast grazing-range that had been almost exclusively theirs through unknown ages. Long before the enormous herds of these animals had been very seriously decimated by the ravages of the white man, the southern border of their range had been invaded by domestic cattle owned and herded by Texans. However, at no time before our Civil War had this invasion extended any very great distance, nor had it caused the native animals serious apprehensions concerning their immediate future, as it was limited in a general way to the eastern and southern parts of Texas. New Mexico still essentially was Mexican in its comparatively small population, and while the sheep-raising industry among the people long had been of noteworthy magnitude, and herds of range cattle were not uncommon, their flocks and herds had not excluded the buffalos from large areas in the eastern parts of that Territory. To the northward these animals were in possession of about three-fourths of Kansas and probably of seven-eighths of Nebraska, having withdrawn from only the farther-eastern part of Kansas and the extreme south-eastern section of Nebraska in earlier times; and still were in northwestern Iowa and central-western and southwestern Minnesota. Over the vast empire lying north of the Texas frontier and west of this Missouri River frontier out to the Rocky Mountains, the buffalos were roving at will in the 50's, almost as they had done from an unknown period in the past.

Immediately after the close of the Civil War there arose that wonderful tide of immigration that rolled like a seismic wave into the "Far West" of ante-bellum days and into the historic Lone Star State in the South. The live stock taken into the new countries by this immense host of sturdy people had practically unbounded opportunities for rapid multiplication, and it was not long until this pioneer domestic stock had increased to "much cattle" that were advancing season by season farther and farther into the southern and eastern parts of the range of the plains buffalos. But the encroachments of these farm cattle had been far exceeded by those of the numerous range-herds that seemed to have come into existence at a bound. The business of grazing and fattening large herds of cattle on the wild pasture-lands of Texas that had had its beginning long before the war suddenly took on new and most vigorous life soon after the close of the conflict, and fast enlarged the field of its operations. The example of the Texans was quickly followed in the central parts of Kansas and of Nebraska and in the southeastern region of the Territory of Dakota; and by 1875 these infringements of domestic cattle upon the domain of their wild relatives had gone so far that it had become a somewhat frequent circumstance for herds of the former to be grazing within sight of vagrant small herds of the latter. In occasional instances it was necessary for cowboys to be detailed especially for the duty of driving buffalos away from the vicinity of their herds to prevent the wild animals from coming in contact with the others and causing a stampede in which both would participate.

The exterminating work of the "hide-hunters" and the "sportsmen" in the meantime had begun, and as the destruction went on and the fast-diminishing herds of buffalos became restricted to smaller and smaller areas of the range, the multiplying droves of cattle promptly moved forward and occupied land that was littered with the bleaching bones of its late tenants. Not infrequently the cattle were within hearing distance of bombardments that were striking down the native animals by hundreds, and even grazing within view of desicating bodies of victims in recent slaughters. These conditions, and the fate which they were precipitating, must have seemed to the buffalos very hard, indeed. While they were beset upon every hand by ruthless butchers, the sorely-hunted animals beheld hordes of their alien relatives, allies of the destroyers, rushing in at the time of awful trouble and eagerly taking possession of the grand estate that had been all their own for so many, many years.

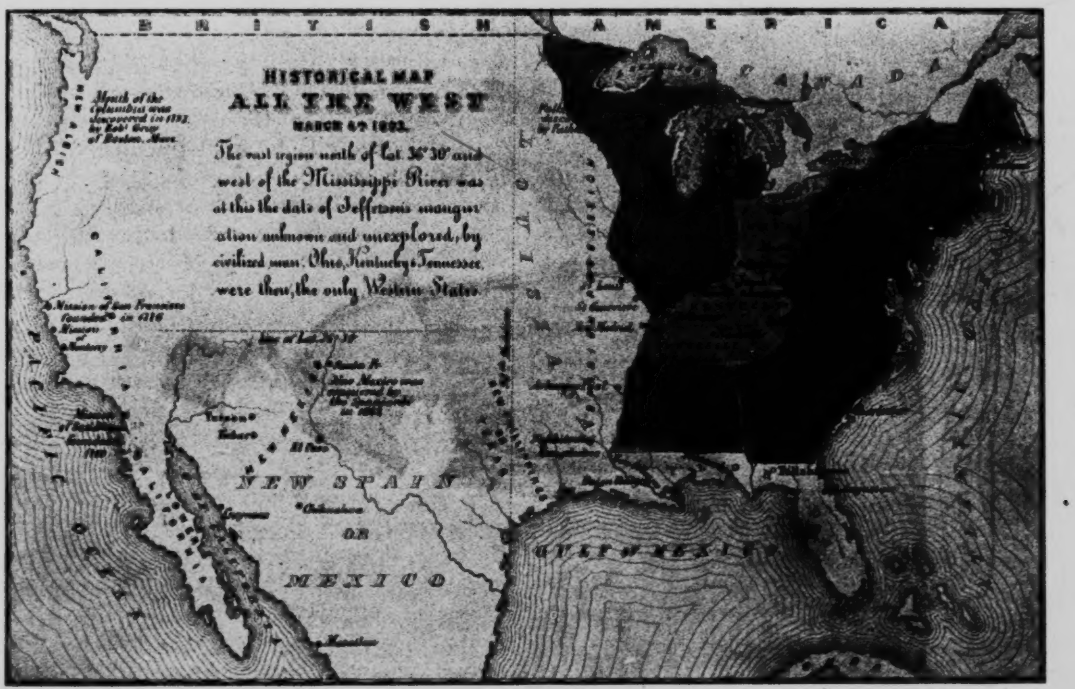
By the year 1885, when the buffalo herds had been obliterated everywhere, and the animals practically had ceased to be among the wild creatures of the plains, their great range throughout the whole of its vast extent in the United States had become the feeding-ground of domestic cattle that were numbered by millions. From the Rio Grande in the south to, and even into, the Canadian Dominion in the north, and west of the Continental Divide as well, there was scarcely a township of fair pasture-land, outside of the Indian reservations or that had not been appropriated to agriculture, that had not upon it cowboys guarding and guiding droves of their horned charges; and these, in occupying the land, almost literally had trodden upon the heels of the vanishing buffalos. Among the achievements that distinguished the peopling of the West none perhaps was more remarkable than this swift restocking of an empire of territory.

Some experienced and observant cattlemen who participated in this work have asserted that in the spring of 1885 the number of cattle on the plains pasture-lands from southern Texas to the Canadian border exceeded, in their judgment, that of the buffalos in the same area at any time subsequent to our Civil War. Live-stock statistics of the year 1885 strongly support these beliefs, as they indicate that there must have been in that year a near approach at least to equality of number under any reasonable estimate of that of the wild animals. The impressiveness of the huge herds, or aggregations of herds, of buffalos was well calculated to produce greatly exaggerated conceptions of the number of individuals they included and also, proportionately, to exaggerated estimates of what the total number in the entire country must be. But as the animals were some what migratory, therefore when they were exceedingly thick in one part of their range they were thinner and often scarce or even absent in other parts. That there were millions of them in the aggregate is not to be questioned. Some of the estimates that were made thirty years or so ago were, as remarked in a preceding part of this volume, preposterously large, and based only upon inconsiderate processes of guesswork, the results ranging from the possible to the wildly impossible—one of the more extravagant having made the total 65,000,000. But the estimate of 12,000,000, which has been set forth heretofore, of buffalos having been killed after the Civil War probably was very near the truth.

Up to the time of that war the resourcefulness of the plains country as a grazing-range for an immense host of cattle had been recognized by but comparatively a few men, most of whom were Texans; and it was not until several years after the termination of our national tragedy that the possibilities of the region for the development and maintenance of a great industry had become somewhat generally understood. The first American who saw and appreciated these possibilities, or at all events the first who made a record of his conclusions concerning them, was Lieutenant Zebulon M. Pike, of the United States Army. In his "Account" of his memorable exploring expedition from St. Louis to the Rocky Mountain country in 1806 he says:

"* * * In this western traverse of Louisiana the following general observations may be made: from the Missouri to the head of the Osage River [eastern Kansas], a distance in a straight line probably of three hundred miles, the country will admit of a numerous, extensive, and compact population; from thence on the rivers Kansas, La Plate [the Platte], Arkansas, and their various branches, it appears to me to be only possible to introduce a limited population. The inhabitants would find it most to their advantage to pay attention to the rearing of cattle, horses, sheep, and goats: all of which they can raise in in abundance, the earth producing spontaneously sufficient for their support, both in winter and summer, by which means their herds might become immensely numerous; but the wood now in the country would not be sufficient for a moderate population more than fifteen years, and then it would be out of the question to think of using any of it in manufactories, consequently their houses would be built entirely of mud bricks (like those of New Spain), or of the brick manufactured with fire; but possibly time may make the discovery of coal mines, which would render the country habitable."

In the early years of the nineteenth century a large portion of the people of the small United States of that period sincerely believed that by the purchase in 1803 of the great province of "Louisiane" the young Nation had become burdened with an enormous waste region that was not and never would be worth the trouble and expense of maintaining authority over it and of otherwise taking care of it. President Thomas Jefferson, for his prompt and vigorous action in the matter, was most vehemently denounced by his partisan opponents. It was usurpation, an outrage on the people, a shameful waste of public money that would result in everything that was bad, from an economic point of view, and nothing that was good. Even some of his political associates hesitated about indorsing a transaction so extraordinary, and that might prove gravely disastrous to the Nation.


BRITISH
AMERICA
CANADA
HISTORICAL MAP
ALL THE WEST
MARCH 4th 1803.
The vast region north of lat. 36°30' and west of the Mississippi River was at this the date of Jefferson's inauguration unknown and unexplored, by civilized man: Ohio, Kentucky & Tennessee were then, the only Western States.
Mouth of the Columbia was discovered in 1793 by Robt Gray of Boston, Mass.
Mission of San Francisco founded in 1776
Line of Lat. 36°30'
Santa Fe
El Paso
NEW SPAIN
OR
MEXICO
GULF OF MEXICO

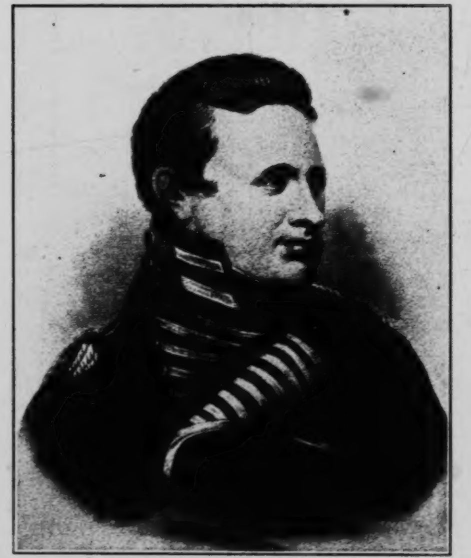
Map of the United States at the Time of the Purchase of "Louisiane."
(From Barber's "Western States and Territories.")
The year, 1793, assigned on this old Map to the discovery of the mouth of the Columbia River, should have been 1792.

At the time of the purchase next to nothing was known by our people of the region that had been acquired, and the vague stories about it that had reached them uniformly were of a gruesome character. In 1804 Lewis and Clarke set out from St. Louis and proceeded up the Missouri River to its headwaters in the mountains where they crossed to the headwaters of the Columbia and by that stream went to the western ocean; and in 1806 Pike led his expedition from St. Louis to the southwestern border of the purchase. There was little in the report of Lewis and Clarke that was discouraging and much that was very favorable. So also with Pike's "Account," for, as in the passage quoted from him above, his estimate of the country he had explored was a very sensible one. He saw and said that much the larger portion of it possessed great resources, and that certain other parts were more or less sterile and therefore unsuited for the maintenance of more than a thin population—as practical experience has proved them to be. But in that period news traveled very slowly, and means for disseminating information were exceedingly deficient; and therefore only a small number of the people ever learned the details of the report of Lewis and Clarke and those of Lieutenant Pike's "Account."

By the time that the war of 1812 had closed it had become rather generally known that the eastern part of the purchase, everywhere within 250 miles or so of the Mississippi River was, upon the whole, a pretty fair country, but as for the rest it was the prevailing opinion that nothing truthfully could be said in its favor. While the fur-traders already had penetrated much farther into the West than the 250-mile limit, there had been no official exploring expedition into these more distant parts since that of Pike. Immediately after the treaty of 1819 with Spain had been concluded, in which, among other agreements, the boundary line between the United States and Mexico finally was defined, an expedition further to explore the upper Mississippi, and the central part of the plains country was organized and placed under the command of Major Stephen H. Long, of the United States Army. It was more complete in its preparations and equipment than either that of Lewis and Clarke or of Pike had been, and the company included several army officers beside it commander, and a contingent of other men of scientific attainments. This expedition crossed the plains, along the course of the Platte River, to the Rocky Mountains, in 1820, and acquired much geographical and other knowledge of the country through which it passed; but the official reports of what had been seen and investigated were discouraging. They said in effect that the entire region from within a short distance west of the Missouri River to the very base of the mountains was, in the main, a desert of sand and stones, worthless for agricultural purposes and having no other value to compensate for that deficiency. The grandeur and beauty of the mountains were extolled, but they were not represented as possibly having any desirable qualities other than those of being grand and beautiful in the pleasant days of early summer.

Few misbeliefs ever exceeded in their persistency and, we may say, in the magnitude of their errors, the one that grew out of exaggerated, extravagant, and distorted versions of parts of the reports of the Long expedition and from numerous vagrant stories from the West that were put into circulation about the same time, and that for so many years was identified in the public mind with our great domain of plains and mountains. When these reports and stories became available to newspaper and other writers, a great array of absurd distortions and ridiculous exaggerations of their contents was placed before the people. The desert-like character attributed by Long to the country he had traversed was, with the encouragement afforded by the current tales of unknown origin, extended over the entire plains region; and soon the "Great American Desert," blanking about all of the country from southern Texas into British America between the longitude of the Missouri River and the Rocky Mountains, was brought into existence on paper.

Then it became fashionable to attribute to the almost unknown region every conceivable horrid aspect and dreadful condition supposed to be inseparable from great deserts. Imaginative writers wrought these into weird stories, and picture-makers were inspired to some most extraordinary performances. Incited to competitive efforts by what was going on, and to win renown for having braved such dangers and come out alive, various alleged "early travelers" into the West, whose pretensions as a rule had no foundation in fact, came forward and exhausted their vocabularies of shiver-producing adjectives in describing, or, as they usually said, "in attempting to describe," the desolate, barren land of horrors that constituted the Great American Desert, and that forever would be uninhabitable by civilized mankind. According to all of these fantastic tales, this waterless, storm-swept land of sand and stones, this howling, hopeless, worthless cactus-bearing waste, infested by savages of extreme fierceness and hideous cruelty, and haunted by prowling beasts of unexampled ferocity, was joined in the far West to a mountain region of equal extent, where peaks tore all of the passing clouds to tatters, where snow that fell before Columbus landed still was under all that had fallen since, where the naked granite sides of the mountains went straight aloft until lost to view, where shrieking gales forever blew over the frozen desolation that reigned supreme, and as they drove along wailed out the warning to rash mankind: "Abandon all hope, ye who enter here!"



Lieutenant Zebulon M. Pike.
(From his "Account" of his Western Explorations.)

The Great American Desert became a conspicuous figure on all the new maps of the United States, and the school geographies supplemented theirs with appropriate pictures, and with brief narratives derived from the current thrilling stories. So there was planted deep in the minds of the people throughout the Union, as it existed in that period, a conviction that the Far West constituted a desert region comparable only with Africa's Sahara. Indeed, in some parts of the country east of the Mississippi, there was much discussion as to which of the two could present landscape horrors that would entitle it to first place among the great deserts of the world, and the disputes frequently excited the ire of the more patriotic partisans of the Great American, who refused to admit that any other part of the earth could surpass theirs in anything—a very praiseworthy manifestation of national pride. Others held that each possessed distinctively frightful features, but thought that it would never be determined which were the more appalling because of the utter uselessness of sacrificing many human lives in attempts thoroughly to explore and find out all about the tremendous and terrible region in the distant West; and that such sacrifices would be involved in such undertakings only a small minority of the people had the boldness to doubt.

In 1838 an appropriation bill for the Post Office Department came before Congress carrying an item providing for the institution of a mail route from Independence, Missouri, to the mouth of the Columbia River. By some hook or crook this proposition, which was an absurdly wild one according to the beliefs of a large majority of the people even in that comparatively late time, managed to get through the House without being challenged, but met in the Senate what was considered to be a richly-deserved death that also was a solemn rebuke to the sponsors of the astounding measure. When the item was reached in the Senate Mr. Webster, of Massachusetts, thought the recklessness involved in such proposed use of public money called for his vehement disapproval. Therefore, he made it the subject of a ponderous speech on the floor of the Senate, and in which he described the character of the enormous region through which it was proposed, as he believed, to carry empty mail-bags at enormous expense, closing his remarks with these words:

"What do we want with this vast, worthless area? This region of savages and wild beasts, of deserts, shifting sands, and whirlwinds of dust, of cactus and prairie dogs? To what use could we ever hope to put these great deserts, or those endless mountain ranges, impregnable and covered to their very base with eternal snow? What can we ever hope to do with the western coast, a coast of three thousand miles, rockbound, cheerless, uninviting, and not a harbor on it? What use have we for such a country? Mr. President, I will never vote one cent from the public treasury to place the Pacific coast one inch nearer to Boston than it now is."

In this tirade Mr. Webster did no more than to voice the prevailing beliefs of his time. He, along with the overwhelming majority of the people, still held to the extravagant misrepresentations that had been developed since the return of the Long expedition, and regarded them as literal, unqualified, all-embracing facts. It was firmly believed by such as he that the western plains were only vast expanses of rocky, sandy surfaces, unwatered and worthless, that afforded sustenance for scarcely any vegetation except cactus, sage-brush, and their allied plants. The mountains were supposed to be impassable except, perhaps, for a few weeks in midsummer, when they might be clambered over by hardy men of experience in mountaineering. It was still said that in winter the entire region, in and out of the mountains, was swept by violent and devastating storms in the rigors of which the preservation of human life would be a grave problem even for those who had made special preparations for the ordeal. All of this was accepted in disregard of the knowledge that Indians were living in every part of the country, year in and year out, just as their ancestors had done for an unknown length of time, and that immense herds of buffalos fed and flourished upon the verdure of the plains.

Among the objections urged by those who were opposed to the annexation of the Republic of Texas to the United States and to making it a State of the Union was that of the alleged worthless character of much of the larger portion of its territory, the Great Desert itself being supposed to spread over at least one-half of the area of the present State, leaving only the eastern section for a short distance west of Louisiana, and the coast region, available for the support of a population. It was insisted that, inasmuch as annexation inevitably would precipitate a war with Mexico (as it did) it would be the height of folly to acquire such a country at such a cost. Moreover, even if Mexico were willing peaceably to part with Texas, the territorial area of the United States already was too large, they said, and had, in the vast desert and mountainous parts of the Louisiana purchase, much more than enough of uninhabitable, utterly useless, domain.

When the first expedition of John C. Fremont, the so-called "Path-finder," was organized and dispatched to the West in 1842, it was regarded by nearly everybody who lived east of the Mississippi River as an undertaking beset by many grave perils, notwithstanding that modified descriptions of the far west country then were coming into circulation. Hunters, trappers, and fur-traders then had been operating in almost every part of it for nearly the quarter of a century and had so nearly exhausted its fur-producing resources that a majority of them had abandoned the business or were preparing to do so; and the Santa Fé Trail had been a route of commerce for years. But even the relatively small number of eastern people who had become better informed about the "Far West" and were revising their earlier conceptions of its extremely forbidding general character, qualified their modified opinions by insisting that, while the whole of the plains country probably was not mere sandy and stony desert, most of it was and of a very bad kind.

The reports of Fremont's several expeditions in the 40's, and the more rational treatment of them by writers for newspapers and other publications, served further to dispel the false conclusions concerning the character and possibilities of the western country. Still the public mind generally was slow in changing its cherished beliefs and hard to convince that most of them were founded on error. The spirit of exaggeration that had for the quarter of a century dominated "popular" literature dealing with conditions in the West had produced a growth of weedy notions as hard to eradicate as any variety of thistle or cactus that infests the sterile parts of the plains.

The hundreds and thousands of adventurous and hopeful men who went forth to go overland to California to shovel out fortunes after the discovery of gold in that country, were looked upon by all who knew them, or of their way of going, as heroes, who would be capable thereafter of facing anything and everything to meet which would call for the most intrepid courage. It is true that the overland journey as made by these men was no holiday excursion, but an undertaking that required endurance and fortitude in all who engaged in it. During the first two or three years of the movement several thousands died on the way that became marked by their graves; but the greater part of the mortality was due to cholera, that was epidemic in the States in that period, and not to the perils of the long trail. Still in popular belief it was the harsh character of the country these pilgrims had to traverse and the conditions arising directly therefrom, far more than all things else, that made the journey a most dangerous one.

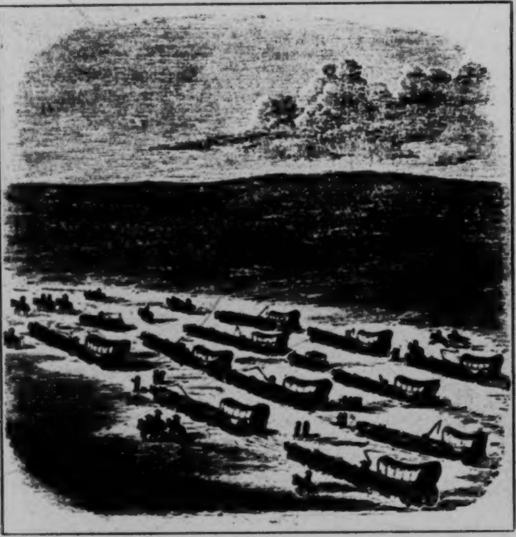
When the initial surveys for a railroad from the frontier of that time to the Pacific Ocean were authorized and directed to be made by Congress, a great many honest, well-meaning people came to the conclusion that the Nation's legislation had passed under the control of imbeciles, and so began to despair of the Republic. The expenditure of public money for a purpose so preposterous as that of ascertaining whether a railroad could be built through such a country, to say nothing of the implied supreme folly of building one, should the surveys prove it possible to do so, was regarded by thousands and tens of thousands of citizens as recklessly extravagant tomfoolery too outrageous to tolerate. Had not Senator Daniel Webster but a few years before made plain the utter uselessness of spending even one cent of the public funds to bring the Pacific coast one inch nearer Boston than it was? Surely we have fallen upon evil days, when the affairs, even the very fate of the Nation, are confided to the care of minds so vacuous as those now in control at Washington. So reasoned in those days, with rising wrath, hosts of really sincere and patriotic voters.

Such ideas as these had yielded but little to facts in so late a period as that of the "Pike's Peak gold excitement." A large majority of the horde of fortune-seekers who set out to cross the plains to the new "gold regions" in 1859, elieved, in common with the friends they had eft behind them, that they had entered upon a ourney more dangerous, more uncertain, than we now regard an expedition bent on flying the Stars and Stripes from the North Pole, and demanding quite as much bravery and determination.

These notions continued to linger in the minds of many people for several years more, and it was not until after the Civil War that they fell into general disrepute and ceased to be influential upon those who were disposed to follow the star of empire into the West. However, there are, even at the present time, some elderly and conservative folks living along the Atlantic seaboard who, never having been west of the Alleghanies, are not yet convinced that the Great American Desert of their childhood school-days was not a reality, and are skeptical when told that about one-half of the area assigned to it on the old-time maps now is cut up into highly-productive farms, on which are the homes of several millions of people, while the other half is, in the main, the pasture-land of a much greater number of cattle and sheep.

Major Stephen H. Long.
(From Smiley's "Outlines of the Earlier History of the Rocky Mountain Country.")

Notwithstanding the barren, desert-like character attributed to the plains country, it was popularly believed that the region was subject to sweeping fires. In pictures these conflagrations usually were represented as great billows of flame rolling over the landscape and sending aloft immense clouds of dense smoke, and driving before them thousands of terror-stricken animals, striving in frantic desperation to escape the besom of destruction that was so firecely pursuing them; the old school-book pictures making awful catastrophes of these events. But as to the phenomenon of so much fuel growing in such a desert nothing was said. In some localities, such as broad river bottoms, where—more so then than now—the exceedingly rank growth of vegetation afforded large quantities of tinder-like fuel, such fires were very dangerous, and when swept forward by a driving gale, often were fatal to all living creatures encompassed by them. But, generally speaking, fires were not so, then as now, on the plains proper. There, as a rule, the wild animals had no great difficulty in keeping ahead, or in getting out of the way, of them. The most interesting features they presented were the spectacular effects produced at night, which were sometimes impressive to the beholder and suggestive of great danger; but in daylight these lost most of their threatening aspects. A ready method of avoiding danger, and the one usually adopted by menaced people—and which still has to be followed occasionally—was to start another fire where they were. The wind would soon drive this blaze away from the starting-point and in the direction in which the other was advancing. In a short time this intentionally burned-over area would be quite large enough to afford security from the other fire, and with no inconvenience greater than the temporary one caused by the latter's smoke. Fatalities to human beings from fires on the open plains were exceedingly rare occurrences.



Bound for the California Gold Regions.
(From Barber's "Western States and Territories.")
Where the way was broad and smooth they moved in this order; where it was narrower and rough they went in trail fashion.

Curiously enough, from the same quarter in which the Great Desert had its firmest and fondest supporters there came in later years a flood of sentimental nonsense about the iniquity of depriving the Indians of their lands and rights in this "worthless" region, and of taking them from the wild, free life that was natural to them and shutting them in upon reservations. During the seventeenth and eighteenth centuries and early part of the nineteenth, as occupation and settlement of the country advanced westward from our Atlantic coast, thep revailing policy toward the Indians was that of extermination. Under that policy most of them were "cleaned out" before the onward march of the white pioneers; and, while they resisted in their savage fashion as best they could, nothing within their power could stay the movement against which they struggled.

The Indians could not have survived in their wild life even had they been given one-third of the country and left to their own resources—to roam over it and to keep on with their persistent fighting among themselves. Under such an arrangement they could not have kept aloof from the destructive influences due to the presence of the white people in the other parts of the country, and contagious diseases, firearms, and "fire-water," to say nothing of other things, would have wrought their undoing within few decades. While rifles and alcohol would have had many victims, the ravages of diseases, their cruel indifference to childhood and old age, their neglect of the infirm and of the sick, the lack of means and knowledge to arrest illness, their ignorance of medicine, the unsanitary condition of their camps and villages, the brutal treatment and heavy labor to which they subjected their women—old and young, and several other and kindred causes, would have claimed many more. From our earliest knowledge of them, their death rate due to accident and disease was very high, especially among their children. Their so-called medicine-practice was a system of horrible sorcery, and to each of their numerous superstitions human life was sacrificed without stint. The sick were given over to priest-doctors to be tormented, bedeviled, and destroyed; and a universal and profound belief in witchcraft made them suspicious, led to the killing of all suspected and obnoxious persons, and engendered blood-feuds on an all-pervading scale. While inter-tribal warfare, disease, and savage neglect and brutality killed many, superstition was a frightful cause of mortality among them. What we would regard as a natural death at a ripe old age was comparatively a rare event in an Indian village, but deaths due to sorcery and to blood-feud were exceedingly common.

At the close of our Civil War the only remaining roving tribes of Indians in the territory of the United States were those of the western plains and mountains, and these, which were being crowded from the Pacific coast as well as from the eastern borders of their fast-diminishing domain, were confronted by the alternative of a speedy annihilation or of accepting the reservation system, the small beginning of which had been made some thirty or forty years earlier for remants of various eastern tribes. They found salvation as a people on reservations that later were allotted to them and to which all of them were removed within a few years. That meanwhile they suffered much at the hands of their conquerors no one familiar with the history of the West would think of denying. Again and again they were the victims of shameful wrongs both by individuals and the national Government; but in turn they committed many and many unprovoked murderous outrages. Agents of the Government—sometimes exceedingly dishonest ones—made them pledges impossible to fulfil, that often were not intended to be fulfilled, but to be the means of swindling and robbing both them and the Government; and brutal, reckless, and worthless white men repeatedly provoked revengeful and cruel retaliations. But upon the whole, and as measured by present results, no aboriginal people since history began, ever received from their conquerors elevating consideration and attention—at lavish expenditure of money—in any way comparable with that bestowed by the United States Government upon the Indians under the reservation system; and the results have justified all of it.

Among the various classes of white people with whom the plains Indians came in contact while they still were leading a roving life, the pioneer stockmen of the range were the most prudent in their attitude toward, and careful in their intercourse with, them. Admitting that this may have been due largely to selfish motives, the practical fact remains that the stockmen studiously avoided acts of personal aggression, and were very rarely if ever known wantonly to go out looking for trouble with Indians. Often they had it thrust upon them, and bloody encounters withal, but invariably these on the part of the stockmen were in defense of their lives and property—the latter being peculiarly susceptible to irretrievable loss by Indian depredations.

While the sentimentalists insisted that the stockmen put themselves among the aggressors "when they drove their herds and flocks farther and farther into the Indians' country," the truth was that the proprietary rights of the Indians to the land over which they roamed were very feeble, and, so far as they existed, they were but little more than nominal. In number the red people, in proportion to the vast extent of territory they occupied, constituted an extremely thin population, but each tribe was identified in a more or less general way with some certain part of the country, although there was so much shifting around that the sense of proprietorship as it exists among civilized people had scarcely a rudimentary development, and hardly can be said to have included a single element of the feeling that we know as "attachment to the soil." The Indians had favorite camping and wintering places, they hunted where game was plenty, and followed the herds of buffalos as and where they moved, unless driven back by hostile and stronger neighbors; for the kind of attention that the tribes ordinarily were disposed to pay to each others' proprietary rights was regulated by considerations of fighting strength, or weakness, as the case might be. Indeed, it was the Indian country rather than the Indians' country.

The western Indian was too extravagant in his use of land. He required for his buffalo range enough of it to make a dozen large States and as much more of mountain region for his deer park. The white man was prepared to make better use of the country and to sustain more people from one square mile of it than the Indian had on a hundred; to say nothing of his willingness to provide abundantly for converting the roving savage into a civilized, educated human being with a roof over his head.

After the systematic and annihilating slaughter of the great herds of buffalos by white men had been put under way, the more intelligent among those of the plains Indians who still were leading a roving life soon began to realize what it meant to their people; and it seemed to them an overwhelming calamity. The slaughter would sweep away their main dependence for food and shelter, and crush their ability to continue resistance to the occupation of their country by the white men. These were precisely the results of the destruction of the buffalos in its effect upon these Indians. The havoc brought Indian wars to an end forever, and forced the most reluctant of the tribes that still were disposed to continue fighting to accept the reservation mode of life. Therefore, though it ever must impress us as having been a shameful and wantonly wasteful butchery of valuable animals, it was not without highly beneficial consequences to the country at large as well as to the Indians themselves, notwithstanding that its beginning appeared to their leaders to be a very completely disguised blessing.

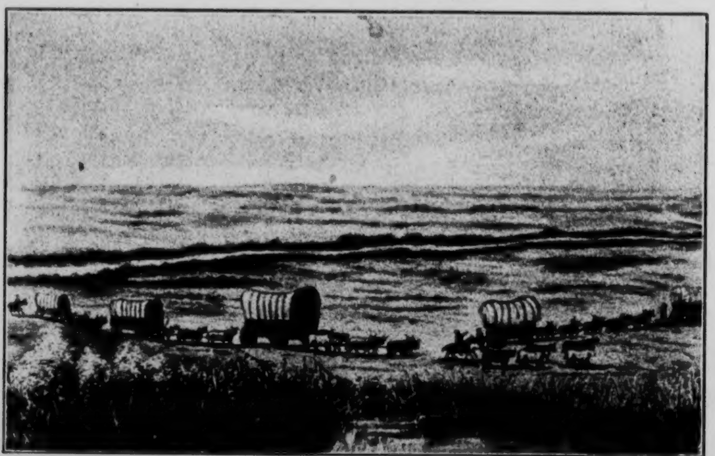
However, as the whites had begun the wholesale butchery, which, by the way, proportionately was on a far more wasteful scale than anything the red man ever had done, and as they evidently were determined to keep at it as long as there were any buffalos left, the Indians did stand idly by as spectators of the destruction of the main resource in a roving life on the plains. Realizing that the slaughter soon would make all of them "wards of the Government," they pitched in and got their "share of the business."

Most of the Indians turned their attention to killing the cows, which, of course, checked the natural increase of the buffalos. But as the hair of the cows was finer and softer and their skins smaller, their hides were preferable for a majority of the uses to which robes were put by both white and red people. During the parts of the year in which the hides were unfit for robe purposes the Indians killed rather industriously—for them—and sold what they did not need for teepee coverings and so forth to the whites for the tanneries. In exchange for these they got the best breech-loading rifles and fixed ammunition, whiskey, and "canned goods," ready-made clothing, and various other kinds of "store goods," and no end of trinkets and suchlike useless trash.

It is probable that the Indians of the range country south of the Union Pacific Railway killed during the slaughter period above a half-million buffalos, including those taken by hunters from the civilized tribes in the Indian Territory. In the northern country the animals relatively were not so abundant, but the Indians managed to get really more than their full "share of the business" as long as the "northern herd" lasted—probably 150,000 head annually during the three or four years of the wholesale butchery. It is more than likely that the Indians, with their high-power breech-loaders, soon would have exterminated the buffalos in the North, perhaps within ten years from 1880, if every white hunter had been kept out of that part of the country. Up to the time when the great Sioux reservation was established in Dakota (1875-77), when 33,739 square miles of country—about the area of the State of Indiana—were set aside for exclusive occupancy by the Sioux tribes, buffalos were very abundant throughout the entire region; and it was made unlawful for white hunters to enter any part of the reservation. Yet within a few years, and notwithstanding that they were receiving supplies from the Government, the Sioux exterminated these herds.

Owing to the "paternal care" exercised by our Government, none of the Indians within the United States suffered for food in consequence of the destruction of the buffalos, but some of those across in the Canadian Dominion were reduced to the sorest straits and even to starvation. As late as 1888 most distressing stories came from that country of want, cannibalism, and death among the Crees, Beavers, and others—people whose fathers had most wastefully slaughtered thousands of buffalos by the methods of the "impound" and the "surround."

It has frequently been said that the Indians were as much to blame for the extermination of the buffalo herds as the white men. It is true that they killed "with a recklessness that was not to be expected of savages, though perhaps perfectly natural to civilized white men, who place the possession of a dollar above everything else," but the white men set the pace for them, and therefore the charge of equal responsibility hardly can be sustained. However, it is undeniable that they did their share of the bloody work that cleared the Great American Desert of the immense herds of live stock Nature had placed upon it, and prepared it for occupation by range stockmen; and afterward they broke the monotony of reservation life and reminded these gentlemen of their services as pioneers by occasionally raiding and killing range cattle.

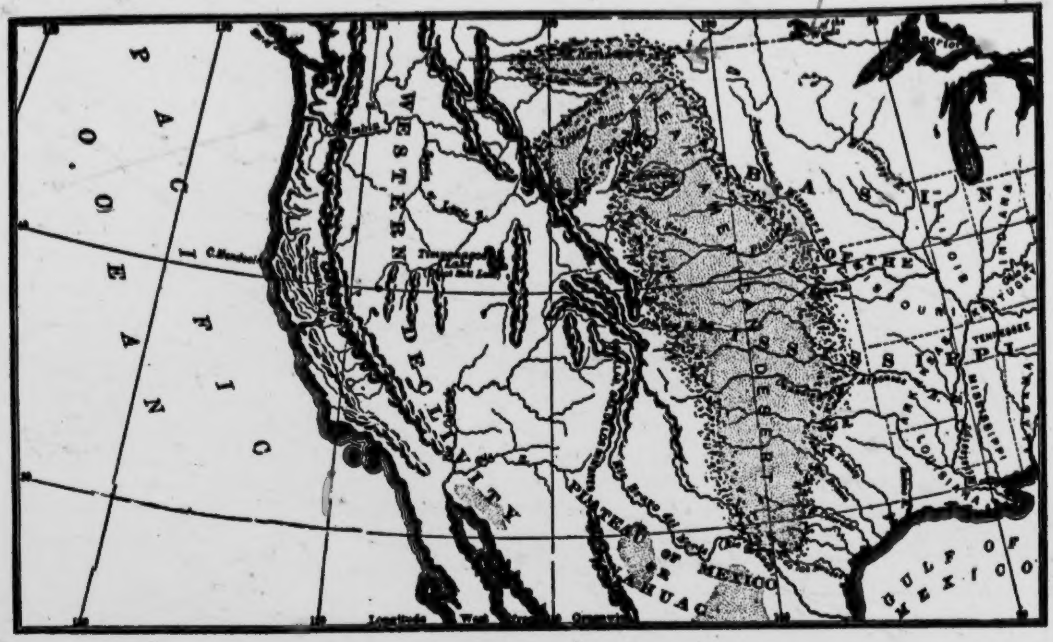


Crossing the Great Plains to the "Pike's Peak Country."
(*From Thayer's "Marvels of the New West."*)

Many present-time travelers on the various western railways traversing the semi-arid zone of the old buffalo-range, and knowing that this now is a vast stock-country, often express surprise because of the small number of cattle they see as they speed along. Having gone mile after mile without seeing more than a few widely-scattered bunches they find it difficult to realize that they are passing through the great cattle region of which they have heard so much. From their point of view cattle are scarce in the cattle-country, and, relative to area measured by the small unit of the acre, they are scare. To the passing observer unfamiliar with the country and its limitations, a given range that really may be overstocked, appears to have on it a number so small as to be almost insignificant. On a tract ten miles square—100 square miles—embracing 64,000 acreas of average range land, there probably would be about 3,500 head, or one to about eighteen or twenty acres; and frequently on such a range next to or within sight of a railroad, every bunch of these cattle might be beyond a roll of the plains and so lost to view. But so enormous is the extent of this range pasture-land that once formed part of the awful "Great Desert," that the aggregate number of cattle feeding upon it, as well as that of sheep, mounts high into the millions.

However, great as is the total number of cattle on the plains pastures at the present time, it is not so large either in aggregate or in proportion to area occupied as it was in the middle 80's of the nineteenth century, for the pastures, generally speaking, have seriously deteriorated from their condition in the opening years of that decade, and the area of range-land has been reduced by various encroachments. Nevertheless, in the highly improved quality of present-time range cattle there is ample compensation for much of the reduction in number. But no one familiar with the character of the country and with the causes of the deterioration of its pastures, doubts that under methods better and more provident than any heretofore applied, the improvement can and will be more than made good and the region rendered capable of supporting a number of cattle greater in ratio to area occupied, as well as in aggregate, than at any time in the past.

But this is not intended to imply that there ever has been or ever will be any such number, actual or proportionate, of cattle in the semi-arid region as in the stock-raising States of lower altitude and more favorable climatic conditions; for the contrary has been true heretofore, is now, and there is no sound reason for doubting that it will indefinitely continue to be. The glamour of romance that has been thrown around the business of rearing and fattening cattle upon the great plains, its picturesqueness, and the wholesale character of the practical side of its operations, cause us often to lose sight of the fact that that upon the small, thick-lying farms of the agricultural States there are many more cattle to the square mile of territory than are possible to maintain on the reluctant soil of the western ranges; for the number of stock always will be greater in those parts of the country in which abundant winter provender can be reserved from the summer and the autumn harvests. In many parts of the range country forage is now produced in limited quantities to meet emergencies in winter, but as a general proposition range cattle still must rustle on the pastures for their living twelve months in the year.



Old Map showing "Great American Desert."
(From Smiley's "Outlines of the Earlier History of the Rocky Mountain Country.")

The disparity referred to in the foregoing is made very plain by a comparison of the average number of cattle at this time on a square mile of range land with the number on a like area in agricultural States; and for this purpose we will take Iowa and Ohio. As stated above, one mature animal to eighteen or twenty acres is about the average capacity of the semi-arid pasture-lands at present, and therefore one square mile (640 acres) carries about thirty-three head. According to the statistics of the United States Department of Agriculture, the pre-eminently agricultural State of Iowa had, on January 1, 1904 (using "round figures" here), 1,363,000 milch cows and 3,502,000 head of "other cattle," a total of 4,865,000. As the area of the State is 56,000 square miles, this gives it an average of about 87 head to every square mile of its territory; notwithstanding that as yet the cattle-raising resources of that State are only partly developed. Ohio, less generally than Iowa, but still largely, an agricultural State, had at the same time 783,000 milch cows and 1,154,000 "other cattle," a total of 1,937,000 head;

an average of about 47 head to each of its 41,000 square miles. But, as no allowance is made here for the areas occupied by cities and towns in these two States, nor for lands used for purposes other than those of ordinary farming and stock-raising, the number of cattle to the square mile of their agricultural areas, proper, is considerably greater than the given figures indicate.

It is only in these matters of number, of the magnitude of aggregate results, that the business of stock-raising in the plateau region of the United States may be compared with what is done to the same end in the agricultural States. In other respects it is to be contrasted, so much unlike are its ways and means. In these States the rearing of stock is, as a general thing, only a part of the farmer's business; and often only incident to it. True it is that there are many exclusively stock farms, but in number these represent but a very small part of the whole. In the farther west the raising of cattle and of sheep are occupations that stand off by themselves, that have no side issues or lines, and to which thousands of men devote their lives, their best energies, and all of their capital. Around a quarter of a century ago, more than now, the general aspects that attended the occupations of these men often brought to mind many things associated with what is told of ancient life in Asiatic lands; but even at the present time, when the fenced range has become a predominating institution, and railroads attend to the moving of live stock hither and thither, these occupations have not been entirely deprived of their Oriental atmosphere.

A roving, lonely pastoral life essentially is foreign to the natural character and bent of mind of the Anglo-Saxon, yet it was he who took the lead in developing and organizing the great live-stock business of the western plains, and it is he who has since remained in command of it; his achievements in connection with it, even in times when it required him to follow a life that was far more of that character than is now known anywhere in the range country, forming another link in the long chain of evidence of his remarkable adaptability to new conditions and circumstances.

W. H. Myers.

Overlooking a lovely valley in Clay County, in Northern Texas, and commanding a wide sweep of the great plains that stretch away in the illimitable distance to the base of the Rocky Mountains, stands the country home of W. H. Myers. The Blue Grove Ranch, as it is named, comprises over 4,000 acres, and was selected on account of its special fitness as a cattle-breeding location. Abundantly provided with water, grass, and shady groves; in a region whose climate is noted throughout Texas for its adaptability to live stock, and within ready access of the railroad at Henrietta, the Blue Grove Ranch gives promise of general recognition in the Gulf States.

Mr. Myers has visited many of the leading breeding farms of the North, and is thoroughly acquainted with the quality of cattle most desirable in the Southern States, and the methods of handling live stock. His ambition is to produce registered Herefords that will be immune from fever and safe for use in any State south of the quarantine line, as well as in the Republic of Mexico.

Six years' experience has shown that the plan is entirely practical, and the fine-bred animals from the Blue Grove herd are already known as far East as Florida. The success of this herd is additional evidence that, in these times of rapid communication and general dissemination of intelligence, as much can be accomplished in six years as was formerly accomplished in two or three times the period. Genuine merit gains quick recognition in America, and a growing number of live-stock men are aware of the importance of improving the quality of their herds. On this account the up-to-date breeder occupies an enviable place in the live-stock world, for the demands for improved live stock will be greater during the next ten years than were ever before known.

Mr. Myers came to Texas twenty-five years ago. He arrived upon the scene during the days of the free range, when the plains were covered with waving grass so high that in many places the grass almost reached the backs of the long-horned cattle. The live-stock business was then enjoying great prosperity, immense herds grazed over the hills and in the valleys, and the buffalo and the Indian were rapidly disappearing. Texas was being threaded by great railways, and cattlemen were sending their stock through to the market by rail instead of driving them by long and tedious journey upon the trail. It was a happy time for an ambitious young man to reach Texas, especially if he desired to engage in the cattle business. The auspicious beginning has been realized, as Mr. Myers has become one of the successful cattlemen of the State. His experience cannot fail to be an incentive to young men who are willing to deny themselves temporarily in order to win further along in the race.

W. H. Myers was born in Rockingham County, Virginia, November 23, 1853. His father was a farmer, and the home of the family was in the beautiful valley of the Shenandoah, one of the most romantic and delightful spots of the world. Mr. Myers, Sr., was of German descent, and Mrs. Myers, mother of W. H. Myers, was, before her marriage, Evaline Cromer, member of a Virginia family closely related to the Harnsbergers. Mr. Myers, Sr., was a farmer, stock-raiser, and a man of influence and sterling character. He died in 1896, and four years later his faithful companion was called away.

Five children were born in the family, one girl and four boys. The children were given excellent advantages of education. One of the brothers of W. H. Myers became a surveyor, and to him was granted the honor of re-surveying a line known as the Fairfax line, thirty miles long, which was originally surveyed by George Washington before the War of the Revolution. The boys of the family early learned to take care of live stock, as a herd was driven to the Blue Ridge Mountains each spring, where the cattle throve wonderfully on the native blue grass, which springs up wherever the timber is killed. The son, W. H., decided to become a live-stock man and to operate in Texas, because he believed it to be the best State of the Union for growth in the industry.

Arriving at Fort Worth, Mr. Myers visited Weatherford, then an important center for live-stock men. There he met Captain M. B. Loyd, who gave him glowing accounts of the advantages of Wichita and adjoining counties and the opportunities for young men on the range. Purchasing a pony, Mr. Myers rode across the country, soon found himself among men who became his friends, and he decided to make Clay County his home.

"Clay County at that time," said Mr. Myers, "was a vast rolling prairie, with the tall grass waving like the surface of the ocean; and no sooner had I left the hills of Palo Pinto and Jack Counties behind than I said to myself, 'This is the country for me.' It was the first part of Texas that struck my fancy. I met a live-stock man named Gooden ten miles from Henrietta on the Little Wichita River, and engaged to work for him. He soon afterwards sold his cattle, and I entered the service of the new owners. I began having cattle of my own, which ranged with the main herd, and in a few years I was on the road to becoming independent."

Mr. Myers is a strong advocate of the idea that young men should invest their earnings in a growing business early in their experience, as they may thus lay the foundation of a start in the same branch of business for themselves. He was in the employ of Belcher & Easley and later engaged with Ikard & Brother, when an opportunity was presented for branching out on his own account. His observation is that a majority of the large cattle companies in the years past, organized upon a stock promotion basis, failed, and in many instances the employees who invested their earnings in stock suffered a total loss. "The tendency of the large capitalized company," said he, "was to appoint a man as manager who was not familiar with the local conditions. The salaries of the officers absorbed the profits, and the claims of the little stockholders were too often entirely ignored. The cowboy who owned cattle instead of stock in the company was the one who was best off."

Mr. Myers moved his cattle from Archer to Clay County in 1886, and later operated in Indian Territory successfully. He began to grade up his herd with Short-horns and Polled Angus breeds. After extensive trips to Northern breeding farms, in 1897 he established his registered herd of Herefords. Land had so appreciated in value that it no longer paid to raise cheap cattle. He selected Herefords because he decided that the Hereford is more prolific than other breeds, a good rustler, and better adapted for a region where the grass has become short.

The head of the Blue Grove herd is Jeffries, sired by the Earl of Shadeland, 41st, at the Ponting Farm, Illinois. The herd has a nnmber of excellent young males and females suitable for the show-ring, but Mr. Myers is making no public exhibitions of his stock at present. He is of the opinion that a breeder of registered cattle ought not to attempt to look after a herd of more than 100 or 200 animals.

"Cattle reared south of the quarantine line for breeding purposes," said he, "ought to be worth more here than those reared north of the line; cattle reared south of the line may be immune from fever, and the demand for that class of registered stock in all the Gulf States is certain to increase. It is mainly a matter of education, and when cattle-owners of the South understand

and accept the tick theory they will appreciate the work which is being done by Southern breeders."

Mr. Myers has made a close study of the tick problem, and agrees with those who claim that ticks may abound in one pasture and be entirely absent from the adjoining pasture. He observed several years ago that calves become immune if placed in a "ticky" pasture, and also that all ticks below the quarantine line do not have the fever virus. The reason for the latter he does not attempt to explain.

One night years ago while sleeping in a blanket on the prairie Mr. Myers was bitten by a rattlesnake. Happily, a quart of whiskey was brought to him within an hour. He drank the entire quart of whiskey, and his life was saved. Although upon the plains at a time when the revolver played an important part in settling differences between man and man, and it was customary for cowboys to go heavily armed, Mr. Myers never carried a revolver. He was in the country at the time of the fence-cutting troubles that often led to bloodshed. For years after he reached the range the cattle, were turned loose at the opening of winter to drift whither they pleased, and were not again seen until the following spring. In 1881 he participated in the greatest round-up ever known in Northern Texas. It has gone into history as the "Centennial Hunt."

Blue Grove, the Home of W. H. Myers, Clay County, Texas.

The winter of 1880 and '81 was unusually severe, and cattle from points as far north as Indian Territory drifted for weeks before the storms until many of them were as far south as Erath and Johnson Counties. A meeting of cowmen was held, and it was decided to combine for mutual assistance, and also to protect the owners of the cattle against rustlers, who had multiplied to almost an alarming extent for several years. A leader was selected, Weatherford was named as the place of rendezvous, and 400 or 500 men gathered to participate in the work. It was one of the most picturesque gatherings ever held on the frontier—the cowboys in their unique costumes, each man leading a string of six or ten hardy ponies, and prepared for arduous and prolonged exertions. The cowboys were divided into eight parties, each division accompanied by a wagon—the chuck wagon—which carried the flour, bacon, beans, and coffee, and was in charge of a driver and a cook. The workers gathered at the campfire at night, where the experiences of the day were graphically recounted, and the veterans regaled the younger men with thrilling romances of the trail. Every cowboy was presumed to know the brands of herds for 100 miles in every direction, as this was an important branch of his education. The wagons moved at distances of eight or ten miles apart, and the little army thus slowly progressed northward, driving the cattle forward until a convenient point for cutting out any desired brand was reached. Then the herd was rounded up, the cattle bearing the brands of owners living in the locality were separated from the herd and driven off to the range. It required two months before the Centennial Hunt came to an end and the cattle were all returned to the protecting care of their owners. The incidents of this noted round-up would require a volume.

Mr. Myers is secretary of the Texas Hereford Association, which now numbers seventy-five members, and he is an enthusiastic worker for the Hereford cause. He is the only man in Henrietta who opposed the open season of two months each winter, which was proposed in the Legislature of the State. While in his opinion the open season, permitting the movement of cattle anywhere inside the limits of the State in the winter time, would be to the temporary advantage of cattle-owners south of the quarantine line, Mr. Myers takes the position that in the end it would be an injury to the State. The billpassed the lower house of the Legislature, but was killed by postponement in the Senate.

Mr. Myers is a constant student of the world's progress. He travels extensively in the United States, and has a wide circle of friends who admire him for his many genial traits. He is a Democrat of the old school, a free-trader, and is opposed to the acquisition of distant islands of the sea by the Republic. He views the protective tariff system as the mother of all trusts, and sees no method of ridding the country of trusts unless the ax is laid at the root of the tree—the tariff.

Mr. Myers' experience in the development of live stock has caused him to make a close study of feeding. While breeding is of first importance, he regards feeding as second, and he has accomplished highly desirable results by close attention to feeding his registered animals.

Modest and retiring in disposition, Mr. Myers is recognized by his friends as the possessor of a beautiful character, developed through years of generous and unselfish acts. His life has been controlled in an important degree by the principle that the acquisition of character is the highest consideration—much higher in his opinion, than the accumulation of wealth. As an elegant writer has observed in the treating of the subject: "The development of character, sublime in its simplicity and powerful in its beauty, is the highest lesson of religion, the first lesson that youths should learn and the last that age should forget." This principle is not entertained by Mr. Myers merely as a sentiment, but it is practically exemplified. The result is that he has attained the rare gift of self-control—one of the most desirable of all human qualities. His philosophy is that there is a Higher Power that shapes our destiny, and it is our duty to get into harmony with this intelligence and accept it as our guide.

* * *

John E. Brown.

The new era of the live-stock industry which is opening in the Southwest is illustrated in a notable degree by the younger generation of men engaged in the business. These young men recognize the passing of the range; they recognize the imperative importance of preparing for changed and changing conditions, and they are voluntarily placing themselves in the current. Many of the leaders of the future are found in the generation born since the Civil War. Nurtured on the ranch or the farm, these young men early gained a practical knowledge of handling live stock. They gained a love for the work, without which it is wholly impossible to succeed. They have enjoyed advantages of education and contact with improved methods not possessed by their fathers, and the consequence is there is now to be met with upon the stage a body of young, active, energetic, industrious, enterprising, and ambitious stockmen, such as the world has never before known.

One of these men is John E. Brown, of Hood County, Texas. Mr. Brown's home is located in the midst of one of the loveliest scenes in all the great State of Texas. Under the brow of historic Comanche Peak, in a delightful natural grove of trees, overlooking a valley of surpassing beauty, the young stockman has established himself with his happy family. The ranch of 1,200 or 1,500 acres is two and a half miles west of Granbury, the seat of the county government. The surface of the ranch, known as Brownview Ranch, presents a pleasing variety of hill, valley, and plain, and is dotted with groves of live-oaks that furnish abundant shade for the stock. Artesian water of the most desirable quality is found at a depth of 150 or 250 feet, and the climate and the natural forage make the ranch an ideal spot for the development of live stock under the most favorable circumstances. The Brown homestead overlooks fifty miles of the Brazos Valley, and from the front porch the visitor may look into five counties.

In selecting the location Mr. Brown had in view the establishment of a breeding ranch, and experience has demonstrated that his judgment was correct. In years to come he hopes to make the Brownview Ranch known throughout all the region south of the quarantine line as a model ranch for registered stock. Starting with grades, he has thoughtfully noted the trend of events, and he now has upon his ranch none but registered animals. His favorite is the Shorthorn, and in his foundation herd are to be seen some of the finest specimens to be found in the South.

"My desire," said Mr. Brown, "is to supply breeders who are breeding pure-bred cattle with herd-headers. I want to breed and raise as good a class of Shorthorns as can be found anywhere in the country. It will require a large expenditure of time, labor, and money, but buyers are making their appearance who have the money to buy what suits them, and the price cuts little figure. I never knew a man to have an oversupply of the best of anything. The world is always looking for the best, and the man who shoots at the stars may meet with criticism from those who are not educated so as to recognize and appreciate pure-bred stock, but he will win in the end. I will have no bull, cow, or steer on my ranch that is not worthy of a place in the show-ring."

Mr. Brown is a man of quiet and unassuming manner, modest almost to a fault in pressing his claims for recognition, and always willing to give to the "other fellow" the floor and all the time he may desire. When the young Hood County breeder comes forward, however, he carries on his open countenance and magnificent physique an assurance of reserve-force that commands attention. When he has completed his remarks, the listener acknowledges that he is in the presence of a natural leader whom destiny has marked as an easy winner.

"Within twenty-five years," said Mr. Brown, while talking in a most interesting vein upon subjects pertaining to the industry, "all the live stock in Texas will be practically pure-bred. The Shorthorn will grow steadily in favor. The great ranches will be divided into small pastures, and the farmer with his small bunch of stock will come into prominence. The man who has several strings to his bow always plays to better advantage than the man with only one string to his bow. The Shorthorn is a milk and butter representative as well as a beef representative. It is one of the leading beef breeds, and its milk and butter qualities are well known. On that account I selected the Shorthorn, and I hope to devote my life to a conscientious development of a breed that I regard as the greatest breed of cattle the world has ever known. I am looking forward to the farmer who cannot afford to own a cow fit only for beef. The small farmers are the ones who will be our customers.

"The steer," said Mr. Brown, "is the finality. Let the people see that a man has something good in the steer line and they will pay for it. When I decided to adopt the raising of live stock as my business I argued as follows: 'Land is becoming high in price; free grass is soon to disappear. With land in West Texas at $5.00 an acre and steers at $4.50 and $5.00 there can be no money made in cattle-raising. We must either go out of the land business or we must improve the grade of the stock.' I thought of breeders in Missouri and other States who use land worth $50.00 an acre for grazing purposes, and the question arose, 'What class of cattle do they raise?' I decided these breeders raised a kind of cattle not known in the region where I was living. I decided to make a start in the right direction, and the first step was to sell sixteen head of steers for $96.00. I then paid $100 for three cows. This was the first dash, and the cows were without calves, too. I was going in the right direction—after the blood. Neighbors called later on and wanted to know the price of stock I was offering for sale.

"'The price is $50.00 a head,' was my reply. They expressed surprise, and declared they had cattle equally as good at $12.50 and $15.00 a head. I stood pat, and before many months the tide set in."

Mr. Brown was the first man in Hood County to sell a bull calf for $50.00 and was the first man in the county to sell a boar pig for $50.00. He has gone entirely out of the grade business, and handles nothing but pure breeds. His standard is $250, upward.

The boar pig which Mr. Brown refers to has a history. This pig was shipped to Oklahoma. It was the first registered pig (Poland China) Mr. Brown ever sold, and was three months old when disposed of. After receiving the animal the purchaser wrote Mr. Brown congratulating him and saying that after an experience of thirty-five years in Kentucky, Texas, and Oklahoma he could truthfully affirm that the Texas pig which he had bought of Mr. Brown was the best he had ever owned or had ever seen.

"The live-stock business," said Mr. Brown, "is the greatest business in the world. Take the live stock of a neighborhood, of a county, State or nation; remove it entirely away, and what would be the result? It would be one of the greatest disasters possible to imagine. The farmer would find no demand for his crops, the store-keeper would discover that his customers were rapidly dwindling away, and every branch of business would come to a standstill; every commercial and manufacturing interest would feel the blow. What is it that has been building up Texas so rapidly during the last few years? What has encouraged the investment of immense capital and the building of factories and railroads? It is the direct result of the introduction of good, blooded live stock; and land will advance in value in direct proportion to the introduction of high-grade stock upon the farms and ranches of Texas."

The statement advanced by Mr. Brown appears unanswerable. It proves not only the high standing that the industry has reached in America, but it shows that the true breeder is a vast blessing to the entire country.

It was largely through the efforts of Mr. Brown that the young steer has gained recognition at the live-stock shows of Texas. His attention was attracted to the subject by noticing in a premium list that no prize was offered in the yearling-steer class. He addressed a letter to a leading live-stock journal calling attention to the omission, and showing that as the movement all over the country was strongly in favor of early-maturity beef, the time had arrived for premium-lists to be revised. He advocated prizes for yearling steers. The subject was taken up by the Texas Shorthorn Breeders' Association, and exhibits of the early-maturity class are now permanent features of the live-stock shows. The Texas Shorthorn Breeders' Association placed an assessment of twenty cents per head upon members to raise a fund for premiums on pure-bred steer calves. Mr. Brown is in favor of eliminating the carload lot exhibit and encouraging the entry of single animals by registered males, every animal to be halter-broken. The presentation of individuals, in his opinion, will encourage many small breeders and infuse new interest into the industry. He prophesies that the educational movement will advance by rapid strides, and the time is not far distant when $100, $200, and $300 bulls will be the rule in Texas and not the exception.

One of the material points to be desired in the steer, according to Mr. Brown, is breadth of head. The short, broad head is, in his opinion, indicative of a good feeder. He also looks for width between the forelegs, width of brisket and back, and slope of the hind quarters. Mr. Brown fed steers for years, and made a close study of feeding and its effects. He is opposed to the use of troughs for feeding purposes, as the cattle congregate at the troughs instead of grazing. He declares, as the result of experience, that in the winter, cattle should be fed in the evening, never in the morning, and they should never be fed in the same place twice in succession. His theory is that cattle need the additional food at night while they are resting more than in the daytime, and a much greater benefit is experienced from feeding just before the cattle are bedded for the night. This point cannot fail to be of interest to feeders. Mr. Brown has made a study of breeding animals.

"A good breeder," said he, "must be a good feeder. A man should study feeding as carefully as he studies breeding. If he does n't feed properly, he fails to develop the animal to the highest state of which it is capable. Feeding should be carried on evenly, with regularity, and at the same hour each day. If the dam is fed highly concentrated foods the offspring will not be given enough bone, muscle, hair, and blood-producing food. The dam should be fed as though she were a yearling and you were trying to develop her. We must all look for the big, thick, fleshy, early-maturing animal. I look to the last three or four crosses of my cows; beyond that I care little."

Mr. Brown is a native of Texas. He was born at Trickham, a little settlement of Coleman County, on the Colorado River, August 5, 1867. His father, E. Y. Brown, at the present time a leading citizen of Cleburne, Johnson County, is one of the pioneer cattlemen of West Texas. He came to Texas from Northern Alabama, forty-five years ago, and settled on the border, where he fought Indians and equally desperate white men, finally laying the foundation of a handsome fortune, the fruits of which he is now enjoying. The elder Brown is seventy-six years of age, and has passed through a career teeming with incidents of a thrilling nature. To him belongs the distinction of being a son of a Revolutionary patriot. His father, known as "Black John," on account of his swarthy color, derived from Cherokee Indian blood, was a noted character of South Carolina. He took an active part in the War of the Revolution, and was a man of wide influence and strong personality. E. Y. Brown served for years in the western portion of Texas as State Cattle Inspector, and became a large cattle-owner before he retired from the range. The mother of John E. was Susan Mayberry before her marriage. She died when her son was only six months of age, and for twelve years he made his home with an aunt. The lad grew up upon the plains; attended school as opportunity offered in the little log school-house; learned to ride, hunt, care for cattle, and to love the free out-door life of the range. He spent three years at Add-Rann College, Hood County (now Jarvis College), and completed his school education by taking the commercial course at Danville, Indiana. At twenty years of age Mr. Brown entered upon the work which finally led him to adopt the breeding of pure-blood stock as his permanent vocation. A number of years' experience upon the range prepared him for the more important field which he has chosen, and it is doubtful whether any young man of the Southwest is better equipped for a successful career.

In addition to being an admirer of pure-bred cattle, Mr. Brown has a strong liking for pure-bred hogs and fowls. The herd of Poland China hogs he has started, promises to become widely known as time passes and the turkeys and chickens on the Brown Ranch are all of pure strain. Mr. Brown acts in accordance with the principle that it costs no more to keep a pure-bred animal than a "scrub," and the result is vastly more encouraging. He advocates and practices the greatest gentleness in treatment of all animals, and he will not harbor a vicious animal or one which is not a credit to its owner.

Mr. Brown is a member of the board of directors of the Texas Shorthorn Breeders' Association; a member of the board of directors and vice-president of the Texas Registered Poland China Association; a member of the Standard Poland China Association of Missouri, and a member of the board of directors of the City National Bank of Granbury. He is a constant student of the best works on breeding, and an advocate of adopting new methods as fast as their utility is proven. It is by constantly carrying out these principles that the greatest good to the live-stock industry is subserved.

In January, 1889, Mr. Brown was united in marriage to Miss Alice Berry, a beautiful and accomplished young lady of Granbury, Hood County. Mrs. Brown is in every sense a helpmeet to her husband, and she presides with grace and dignity over one of the most charming homes of Texas. Three promising sons—Byron, fourteen years of age; Earl, eight years; and Patrick Berry, four years of age—have brought sunshine to the household.

A visit to the Brownview Ranch is an inspiration. It brings one into contact with an enthusiastic breeder who will be satisfied with nothing but the best and who is aiming to effect a lasting impression in educating stock-raisers to a higher standard in selecting animals for their farms and ranches. With Mr. Brown the work is a never-failing pleasure, and his greatest reward is not in the financial recompense; it is in the knowledge of a great responsibility conscientiously discharged. He has adopted as his motto: "My customers shall be my friends."

Pioneer Westward Movements.

The Advance Into the Mississippi Valley.—Early Settlements in Tennessee and Kentucky.—Occupation of the Upper Ohio River Country.—Exodus to the West After the War of the Revolution.—Settlements in Ohio.—The Louisiana Purchase.—The Oregon Country.—Basis of French Title to "Louisiane."—French and Spanish in Texas.—Ways and Means of Emigrants who Crossed the Alleghanies.—Their Live Stock.—Farm-Clearing and Home-Making in the Forests.—Slow Natural Increase of Pioneer Live Stock.—The Mysterious "Milk-Sickness."—Renewed Westward Movement After the War of 1812.—Development Retarded by Insufficient Transportation Facilities.—Pack-Horses and Conestoga Wagons.—The Rise of the Lone Star Republic.—Settlement of Whitman's Colony in Oregon.—Annexation of Texas, and War with Mexico.—The Mormon Movement to Utah.

The swiftness with which the vast region of the "Far West" of old times was occupied and developed by our people after the close of our Civil War has no parallel in history; yet the occupation of the eastern and the central parts of the Mississippi Valley had been by no means slow after the Thirteen Colonies had won their independence, and with it the certain extension of their domain westward to the Mississippi River from its sources almost to its mouth.

Notwithstanding that the French had pushed into the valley by way of the St. Lawrence River and the Great Lakes, and had established a chain of forts, trading-posts, and missions, with appendage settlements from the lakes to the gulf, before there had been a movement by English-speaking people to occupy any part of the valley, they had not succeeded in planting themselves very firmly in it excepting at New Orleans and at St. Louis and in the latter's vicinity. St. Louis, founded in 1763 by La Glede (Laclede), a French fur-trader, had, by 1780, become a town of about 120 stone-built houses, with a population numbering about 800 persons. Not far away was Ste. Genevieve, a place of more than 400 people. These two towns were the only French settlements then on the western side of the Mississippi. Near by in Illinois were the towns of Kaskaskia and Cahokia, having a combined population of several hundred.

A few English frontiersmen and traders with the Indians had penetrated the upper parts of the Ohio River country before 1750, but the French claimed it, and for some years afterward prevented English occupation.

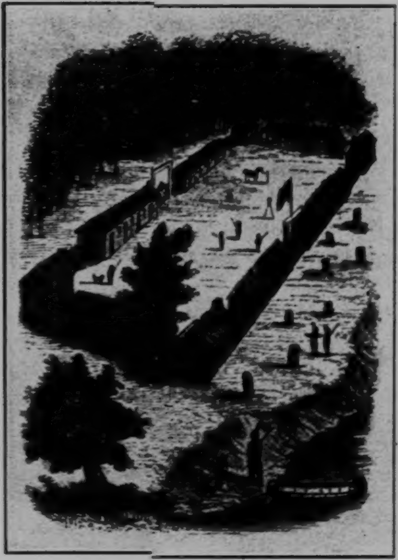
In 1754 emigrants from North Carolina entered what is now the eastern part of Tennessee and made settlements there that proved to be permanent. These were the first English settlers on the westward side of the Alleghanies, and William Bean's son was the first child born among them; while their cattle, horses, and pigs constituted the first live stock introduced into any part of the Mississippi Valley by English-speaking people.

The colony of Virginia, from its institution, had claimed an indefinite extension of its territory to the westward, and in 1749 a "royal" grant of an extensive tract of land on the Ohio River had been made by the King of England to an association of traders called the "Ohio Company." There already had been considerable friction between the French and the English in America, and preparations by this Ohio Company in 1753 to take possession of its grant formed the immediate cause of the long colonial war between England and France that broke out soon afterward. In 1762, while engaged in this war, France, by a secret treaty, ceded to Spain all of her possessions in the Mississippi Valley that lay west of the great river, and also a district that

The Old French Fort at St. Louis.
(From Wilson's "History of the American People.")

included New Orleans; and in 1763, by the treaty that terminated the war, she lost to England the Canadian domain, together with the remainder of her possessions in the valley. The latter in turn, under the treaty of peace that ended our Revolutionary War, were ceded by England to the United States.

In 1767 John Finlay, a trader from North Carolina, entered the central Kentucky region by way of Cumberland Gap, and upon his return imbued Daniel Boone with a desire to go there, too. In the spring of 1769 these two, with some other backwoodsmen, visted the country, and were so delighted with it that they resolved to bring settlers into it and occupy it. In the summer of 1774 James Harrod, with several companions, began a settlement on the site of the present Harrodsburg, but upon being warned by Boone of the immediate danger of a general uprising of the Indians, temporarily abandoned their purpose. In March, 1775, Harrod, with a party of fifty, re-occupied the ground and there established the settlement of Harrodsburg. This pioneer, in company with Michael Stover, had, in 1767, ventured as far west in Tennessee as the site of Nashville. In April, 1775, Boone and some twenty other frontiersmen began building a fort on the Kentucky River, a short distance to the east of Harrodsburg, which took the name of Boonesborough. Within a few weeks Colonel Richard Henderson and about thirty others from Virginia and North Carolina joined Boone's party, and, to give life to the movement, Henderson opened a land office at Boonesborough. By the middle of May there were about 250 people in that part of Kentucky. On May 23, before the fort had been entirely completed, the first legislative body that met west of the Alleghanies—the "Assembly of Transylvania"—was organized at Boonesborough and framed a simple code of laws; among these being some provisions for improving the breed of horses.


Boonesborough in 1775.
(From Barber's "Kentucky.")

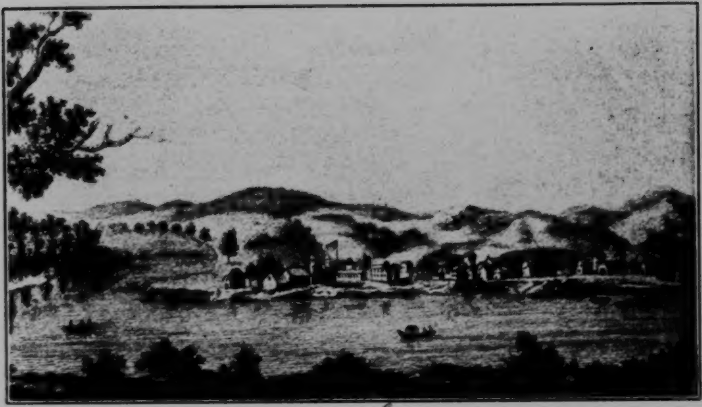
In the summer of 1773 Captain Thomas Bullitt, in company with Hancock Taylor, descended the Ohio River prospecting for town-sites. At the mouth of the Kentucky River they separated, Taylor going up that stream to the site of Frankfort, where he made some surveys. Bullitt continued on to the Falls of the Ohio, and there laid out the plot for a settlement where Louisville now stands; the first regular town-mapping in Kentucky. The plot was not occupied until two years later, though on a tract outside of it John Cowan had built a log house in 1774.

As at Fort Pitt (Pittsburg), English troops had occupied the old French posts at Detroit, Vincennes, Kaskaskia, and some other places, since 1763, but the embryo settlement on the site of Louisville was the farthest-west English advance south of the Ohio River at the beginning of the War of the Revolution.

Bullitt had reached the Ohio by way of the Kanawha, and while descending the last-named stream in the spring of 1773 had "located" a prospective town on the site of the present Charleston, West Virginia. But earlier than this a beginning had been made on the site of Wheeling, where, in 1769, Ebenezer Zane had built a cabin. In 1770 he had been joined there by his brothers, Jonathan and Silas, and by the close of 1773 there were several cabins clustered about those of the Zanes.

Shortly after the termination in 1763 of the war between the French and English in America a considerable movement of people from eastern

Pennsylvania and adjacent parts to the country of the headwaters of the Ohio River began. Benjamin Franklin reckoned that by the close of 1769 not less than 5,000 families, averaging six persons to the family, had sought lands on the Ohio; a reckoning that did not include several thousand families which had passed the mountain gaps, but had tarried within the proposed limits of western Pennsylvania. Fort Pitt—the Fort Du Quesne of the French—on the site of Pittsburg had been a rallying-place for traders and other frontiersmen since the close of the war, and by 1770, when George Washington visited the Ohio River country on his prospecting expedition, quite a village of traders' houses and settlers' cabins had grown up on the bank of the Monongahela near the fort.



Pittsburg in 1770.
(From Fiske's "Westward Movement.")

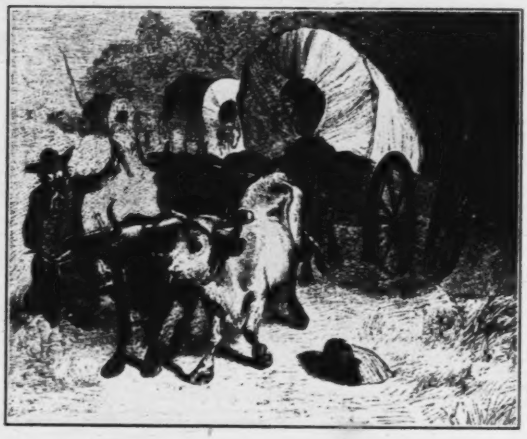
In 1772 a colony of Moravians, under the heroic missionary, David Zeisberger, moved from Pennsylvania to the country that later became the State of Ohio, and laid the foundation of a settlement on the "second bottom" of the Tuscarawas Valley (Muskingum).

The eastern Tennessee country long had been claimed by North Carolina, and in 1776, when the rebellious constitution of the latter was formed, the region of the settlements that had been founded west of the mountains in 1754 was styled the "District of Washington," and the people there sent deputies to the constitutional convention.

Thus, as we have seen, the westward movement of English-speaking people into the eastern borders of the great Mississippi Valley had reached considerable proportions before the outbreak of our War for Independence; but it was small in comparison with the westward flow of hardy and hopeful emigrants that began a few years after the termination of that war. While many of these earlier pioneers were traders, Indian fighters, land-grabbers, or adventurers, there were many others who were settlers upon the soil and who had brought live stock with them into the new country. George Croghan, a prominent pioneer figure in that period, in December, 1773, represented the westward emigration as "surprising," and said that he had been told "that there can't be less than sixty thousand souls" settled in the Ohio River region west of Pittsburg. But this evidently was an extravagant exaggeration of the number.

While the War of the Revolution checked the westward movement for several years, it did not stop it, for some emigrants continued to pass into eastern Tennessee, Kentucky, and into the upper part of the Ohio River valley. In 1779, a noted migration started west from the eastern part of Tennessee. It comprised nearly 400 persons, 200 of whom, all men, under the lead of James Robertson, went by land; the rest, mostly women and children, under the care of John Donelson, spent four months in flatboats and canoes going down the Holston and Tennessee Rivers and up the Ohio and Cumberland, a thousand miles, on some waters never before navigated by white men. With Donelson went his daughter, who (in 1791) became the wife of Andrew Jackson. Thirty-one of Donelson's party were left by the way, killed by Indians. The two parties united and founded the city of Nashville. In 1780 about 600 people, men, women, and children, mostly Virginians, in a large flotilla of flatboats, descended the Ohio river to its falls, and settled on Bullitt's townsite. To this place the Virginia Legislature gave the name, "The Town of Louisville at the Falls of the Ohio," in honor of Louis XVI. of France, whose soldiers then were aiding the Americans to gain their independence. These people took horses, cattle, sheep, and hogs with them in their flatboats, and theirs was the strongest settlement of English-speaking people in the Ohio valley west of Pittsburg before the close of the War for Independence.

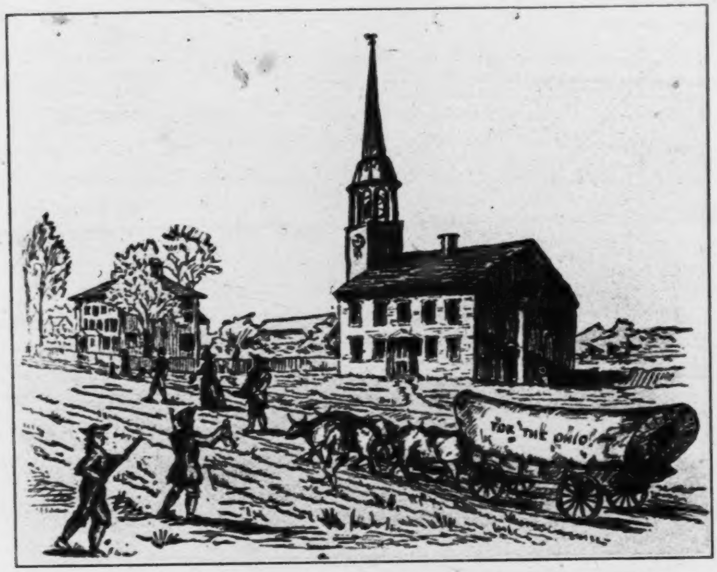
Within two or three years after England had made peace with the United States in 1783, the attention of a large number of the people of the infant nation had been turned to the beautiful and fertile region beyond the Alleghanies that now unequivocally had become a part of their domain. Glowing accounts of the vast country were in circulation: the soil was fertile; rains were abundant; the climate was genial; game was plentiful; and its broad and deep rivers were pleasant highways into and through it. Therefore, a popular rage for migration to the West began to develop. In July, 1787, the Congress of the Confederation enacted an ordinance "for the government of the Territory Northwest of the Ohio"—the memorable anti-slavery "ordinance of 1787"; for the government of a region out of which in later times the States of Ohio, Indiana, Illinois, Michigan, and Wisconsin were carved.



Crossing the Alleghany Mountains.
(From an old print.)

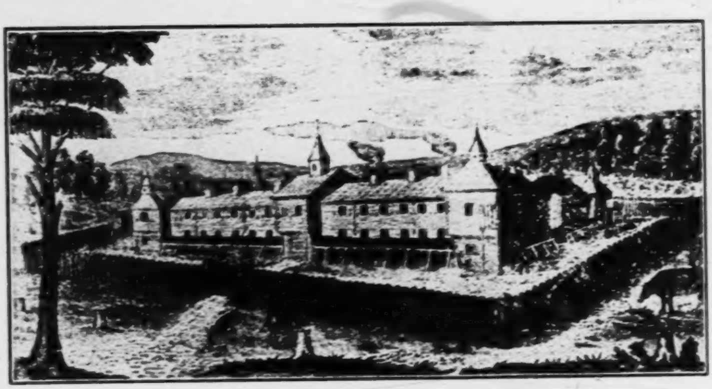
By that time the "Western fever" was general among the people from New Hampshire to North Carolina, and thousands were selling their homesteads for what they would bring and preparing to start for what they called the "boundless West," there to begin life anew under the most favorable circumstances. In April, 1788—the year in which the Constitution of the United States was ratified and went into effect—Marietta, on the Ohio River at the mouth of the Muskingum, was founded by a colony of New England people under General Rufus Putnam that included many other officers of the Revolutionary Army; and late in the same year the town of Losantiville, that soon afterward was given the more sensible name of Cincinnati, was located and a block-house was built upon its site. The people streamed into the new country. Those destined for the Ohio River valley crossed the mountains to Redstone on the Monongahela, where they built flatboats, or bought them from those who made a business of building them, loaded their possessions into these crafts and floated away. It was not easy to make an accurate record of the number of these boats which were constantly passing into the Ohio at Pittsburg, for many floated by in the night; but in 1788, up to May 11th, at least 200 of them, averaging twenty persons to each, passed that point in the daytime. At the same time a large stream of immigration was flowing through the Shenandoah Valley into Tennessee, and into Kentucky by way of Cumberland Gap; while another, but lesser, had begun to make its way into the promised land along the shore of Lake Erie and in boats upon its waters.

This westward movement increased in magnitude season by season through the remaining years of the century, and continued on into the nineteenth, growing larger and larger. On the roads to the west the wagons formed almost unbroken caravans that signified a remarkable shifting of population. While it did not, of course, include so great a number of people, it was, in proportion to total population and in many other respects, even during the last ten or twelve years of the eighteenth century, one that may fairly be compared to the stream of settlers that poured into the "Far West" after the close of our Civil War. Settlements were multiplied, and the wilderness was subdued, but under conditions far more difficult, far more trying to hope and resolution, than those which confronted the pioneers of the trans-Missouri country. The Kentucky region became a State in 1792, and Tennessee was admitted to the Union in 1796. Thus within nine years after the conclusion of peace with England the authority of the State governments of Virginia and Kentucky extended from the Atlantic Ocean to the Mississippi River. The State of Ohio was organized in 1802, but owing to a hitch in the proceedings did not become a full-fledged State until the following year.


FOR THE OHIO!

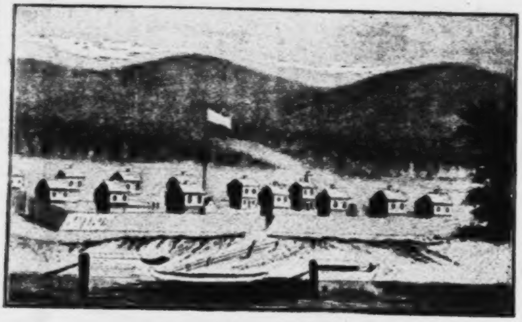
First Company of the Marietta Settlers Leaving Ipswich, Massachusetts, December 3, 1787.
(From Howe's Ohio "Historical Collections.")

Then came the purchase from France of the great "Province of Louisane," in which lay unknown most of the future field for the operations of the American range cattleman, and for the development of his picturesque helper, the cow-boy. By the treaty of 1800 between Spain and France the latter recovered all of the domain she had secretly transferred to Spain in 1762. In 1803 Napoleon Bonaparte, then First Consul of the French Republic, being hard up for the sinews of war, anticipating that he might not be able to hold the province in his expected embroilment with England, and determined to prevent it falling into English hands, sold it outright to the United States for $15,000,000. The region was held by our people to embrace at least all of the country west of the Mississippi River that was drained by the tributaries of that stream, while many supposed that it included also the Columbia River country down to the Pacific Ocean. But the stronger title to the Oregon region on the part of the United States rested upon the discovery claims made by Captain Robert Gray, of Boston, who had entered the Columbia River in 1792 in his ship *Columbia Rediviva*, naming the stream after his vessel. Soon after the purchase of Louisiana our people boldy asserted their right to the Columbia River country, and, as heretofore mentioned, Lewis and Clarke explored it in 1804-06. Some Americans located on the Columbia in 1810,



"Campus Martius," Built by the Settlers at Marietta in 1788.
(From Howe's Ohio "Historical Collections.")

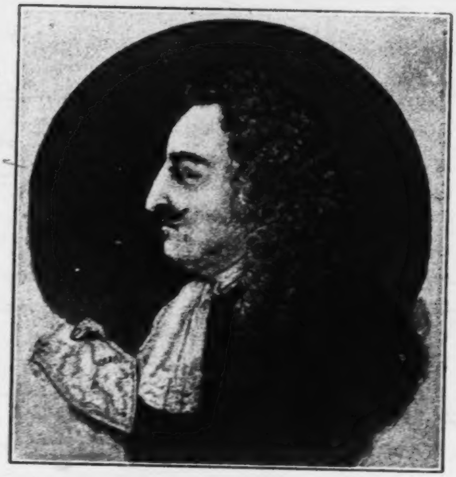
and in 1811 John Jacob Astor established the fur-trading post, Astoria, of which the present city of that name is a development, on the left bank of the river near its mouth. He had dispatched two expeditions from the East to the mouth of the Columbia, one by land and the other by sea, but the overland party reached the destination first and had selected the site of the post before the other arrived.



"Farmers' Castle," Built by the Settlers at Belpre, Ohio on the Ohio River, Twelve Miles Below Marietta, in 1790.
(*From Howe's Ohio "Historical Collections."*)

Spain surrendered her shadowy claims upon that country by her treaty of 1819 with the United States, but the wrangling with England continued until 1846, when, by the treaty of that year, the 49th parallel was made the boundary between American and British territory in the northwest. However, the domain of the United States had been extended without a break across the great continent from ocean to ocean within about twenty years after the achievement of American independence. As heretofore set forth, a very large number of excellent citizens in these, as well as in later, times were persuaded to believe that in this extraordinary expansion of territory the Nation had, to use a somewhat inelegant but rather forceful expression, "bitten off more than it could chew." But this does not matter now: while most of the earlier ones clung to their beliefs until the close of their lives, many of the later learned better before they passed away; and millions upon millions of their descendants now revere the wisdom, foresight, and courage of Thomas Jefferson and his associates, who made the United States at one bound a continental nation.

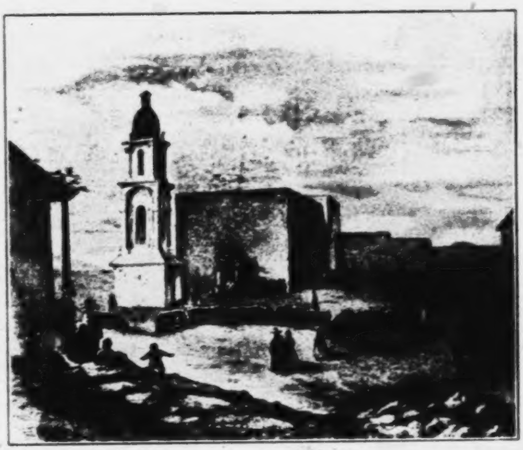
The original title of the French to Louisiana rested upon the explorations, discoveries, and claims made by their countryman, Robert, Chevalier, Sieur de la Salle, in 1682. He had been in the region of the Great Lakes for several years, and early in 1682 navigated the Mississippi from the Illinois River to the Gulf of Mexico, reaching the river's mouth in April of that year. Here he formally laid claim to and took possession of, in the ceremonial fashion of his time, for and in the name of Louis XIV., King of France, all of the country, however far it might extend, that was drained by the Mississippi and its many tributaries, and named it "Louisane," in honor of his king. Under this broad claim he included the Texas country, although, as was learned long afterward, only the northern part of it drained into the Mississippi. In 1684 he brought from France a colony of about 300 people, including a few soldiers, together with some live stock, and landed them on the shore of a bay later named "Espirita Santa" by the Spaniards—the Bay St. Louis, or St. Bernard Bay, of recent times—an indentation of the coast of Texas, southwest of Galveston. La Salle named his settlement La Vaca, but it did not long survive. Within two years many of the people had died



La Salle.
(*From Fiske's "History of the United States."*)

of disease and at the hands of Indians; and in January, 1687, La Salle, with a small party of soldiers, set out by land for Canada to obtain relief. On March 19, 1687, near the Trinity River, in Texas, he was assassinated by two of his embittered and exasperated followers. Others of the company afterward perished in the swamps and forests, but a few eventually succeeded in getting through to Canada. Of those left behind at La Vaca, nearly all were cut off by the Indians, and the few survivors were rescued in 1689 by a Spanish force that had been sent from Mexico to destroy the settlement, which the Spaniards alleged was in their territory. The French, within the next thirty or forty years, made some attempts, including reoccupation of the site of La Vaca in 1720, to retain the Texas country, but these efforts proved unavailing, and they soon conceded that their "Province of Louisiane" did not extend west on the gulf coast farther than the mouth of the Sabine River, which stream now forms part of the eastern boundary of Texas.

A Spanish mission had been established at El Paso at the extreme western point of the present area of Texas, but on the Mexican side of the Rio Grande, in 1580—more than 100 years before La Salle's time—but meanwhile the Spaniards had made no attempt to occupy any part of the Texas region, proper. The officer, Captain Alonzo de Leon, in command of the Spanish force sent in 1689 to destroy La Salle's settlement, encountered in its vicinity a tribe of Indians, the "Asimais," who received him with great kindness and hospitality. Reciprocating the friendliness of these people, the officer bestowed upon their country the name "Texas," a word which, in their language, signified "friends." In 1690 the Spanish founded two unimportant missions in Texas, and in 1692 the historic one of San Antonio de Bexar, where later they built the famous Alamo. But this occupation of the country turned out to be more of a missionary and of a military character than civil, for the French, after they had made settlements in southern "Louisiane," around 1700, became disposed to make inroads upon the Texas country, and later did so, as mentioned above. It was not until the year 1715 that Spanish civil settlement of the region really began, and at that time Leon's "Texas" was ignored, and the country was given the name of "New Philippines," which, however, did not stick. Trouble with the Indians, who were less submissive than those of Central Mexico, and various other causes, prevented the settlements making much progress. At the time when France ceded "Louisiane" to Spain (1762), there were less than 1,000 people of European origin in the Texas country, and when the United States acquired the French province, the number probably did not exceed 5,000; and within a few years most of these were engaged in illicit trade between our country and Mexico. As early as 1806 there was revolutionary friction between Spanish authority and the foreign element that already included a small but influential number of restless Americans. In 1810, the year of the first Mexican revolution, the Spanish-Mexican population was less than it had been seven years before, the only settlements of importance being those of San Antonio de Bexar, Nacogdoches, and La Bahia or Goliad.



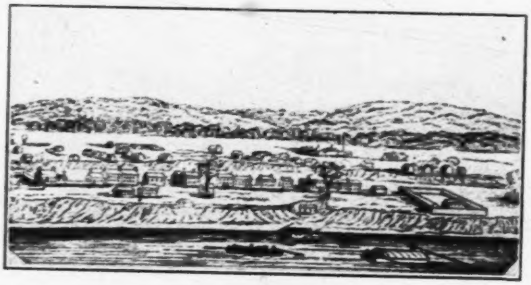
Old Mission Church at El Paso.
(From Bartlett's "Narrative of Explorations" in 1850–'52, by the United States and Mexican Boundary Commission.)

The Spanish people early had brought live stock into the country from Mexico, mostly cattle and sheep, and with these some of them had made a small beginning at range herding, the first within the present limits of the United States; these feeble efforts having preceded the

California mission operations in that kind of stock-raising. Some of their cattle escaped from control and joined others that previously had wandered from Spanish settlements in Mexico into the Texas plains, where they were leading a wild life.

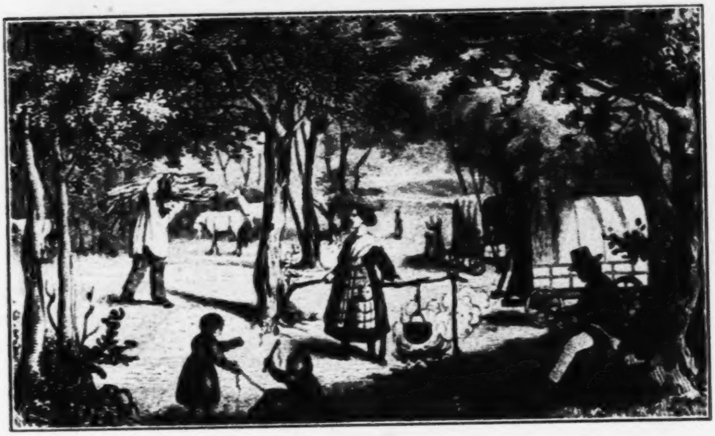
Type of Flat-Boat Used by Pioneers in Descending the Ohio River.
(*From Fiske's "Westward Movement."*)

We shall now turn to some further consideration of the ways and means of the early emigrants from the tidewater States to the new countries west of the Alleghanies. The backwoodsmen who went before them and blazed the way—a class of intrepid men, of whom Daniel Boone and Simon Kenton were famous examples—traveled afoot and often alone in light marching order. For conveying overland the supplies, household belongings, tools and implements of the emigrants the principal means were covered wagons drawn by slow-moving oxen; pack-horses being used only to a small extent. Room for the women and children usually was reserved in the wagons, but many a brave pioneer woman made the journey on horseback, and many others walked much of the way. At the beginning of the movement tracks for the wagons had to be cleared through the forests, and frequently it was necessary to do some grading of roadway and some rude bridge-building. But as the travel increased these rough trails became more passable, each group of emigrants contributing some work to their improvement. As mentioned on a preceding page, all of the Tennessee pioneers and many of those of Kentucky proceeded toward their destinations by way of the Shenandoah Valley, while those bound for the Ohio River valley region crossed the mountains to the upper reaches of the Monongahela River, where, as they usually were in parties or small colonies, they joined in building or buying floatboats in which they floated on down to their destinations, or to the river-points nearest to them. Some of those boats were of large size and capacity for such crafts. They were square-built, sided up to about the height of a man's shoulder, and most of them had a deck or roof only at the stern end—more like floating pens than anything else. They were kept under control by means of pivoted oar-like sweeps that were made of long poles, having a piece of hewn plank fastened to the outer end. Heavy with cattle and other live stock, with household goods, knocked-down wagons, and other belongings, these boats conveyed many thousands of people down the Ohio—10,000 being said to have gone in this way to Marietta, Ohio, and its vicinity in the years 1788–89. Of those bound for northeastern and central-eastern Ohio, some made the entire journey by land, while others went by land to the eastern extremity of Lake Erie, where they bought or built themselves bateaux, which were the wide, roomy and steady open boats used by the French fur-traders, but not large enough to accommodate live stock, excepting a few sheep or pigs. In such boats, propelled by oars or paddles, and occasionally helped along by small sails, a considerable number of pioneer emigrants made the final stage to or near to their destinations. General Moses Cleaveland and his company of New England people who founded the city of Cleveland in 1796, went from the foot of Lake Erie to the site of that city in bateaux.



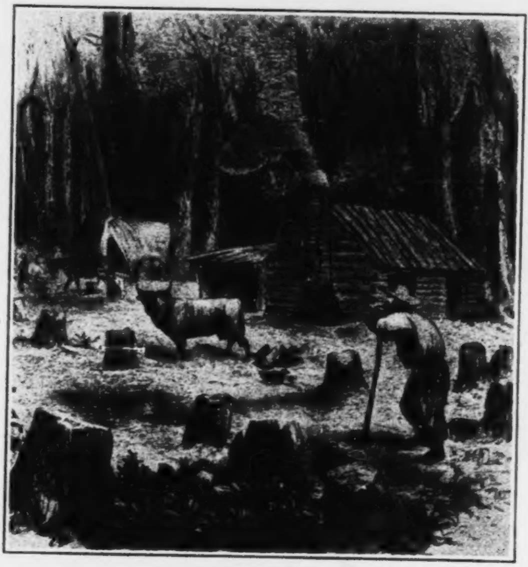
Cincinnati in 1802.
(*From Howe's Ohio "Historical Collections."*)

Live stock is about as necessary to the settlement of a country as are the settlers themselves. The pioneers of eastern Tennessee, as we have seen, took live stock into that country soon after the middle of the seventeenth century; and there were some horses and cattle in Kentucky before the Declaration of Independence. Between the close of the Revolutionary War and the end of that century the aggregate number of domestic animals taken west of the Alleghanies was very large. It was not only easy, but helpful, to take horses into the new country; but cattle, which gave but little trouble, were the mainstay, oxen having been almost exclusively used for draft purposes while on the trails. The team-work necessary in clearing and for farm-work was chiefly done by oxen. The employment of oxen appeared to secure many advantages; the first cost was less than for horses, oxen were more easily kept, the yoke with which they were worked could be made by any handy farmer, and was therefore much less expensive than the harness required for horses. The log-chains used with oxen were well adapted for work among timber and when broken could easily be mended by the neighbor blacksmith; and and if any accident befell an ox and he became unfit for work, this probably would not prevent his being fattened and converted into beef. When a party of emigrants had several head of loose cattle—milk cows and a bull or two—as generally was the case, one of these animals usually would be tethered to a wagon, and when the caravan moved, the others would quietly follow their captive companion. Sheep made more trouble, and hogs were the worst of all. Both had to be driven, and each often produced very exasperating situations. Furthermore, the feet of the sheep would give out on the rough mountain roads and so disable them that they would have to be given a lift in the wagons; and at other times there were relatively heavy losses among them at the jaws of wolves. The hogs, though far better travelers than the present-time types, frequently failed under the stress of continued daily marches and comparatively short rations, and then, they, too, would be given a place in the wagons. It would sometimes happen that discontented and unruly hogs would rebel and take to the woods and be seen no more by their owners. These pioneer swine were not noted for their beauty of form, and for a quarter of a century or so their descendants commonly were known as "rail-splitters."

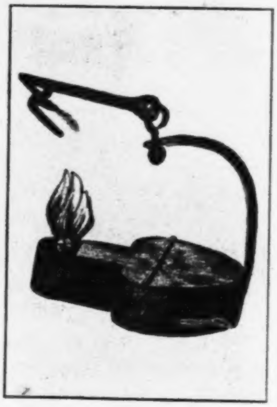


Emigrants' Arrival at Their Destination.
(From Howe's Ohio "Historical Collections")

A far more formidable amount of hard labor confronted the pioneers of Tennessee, Kentucky, and Ohio, where nearly all of the land was heavily forested, than lay before those who advanced into the trans-Missouri country above a half-century later, and where they found the soil ready for the plow and unlimited pasturage right at hand for their live stock. A cabin was the first thing to be provided by the forest-settlers. After cutting logs of suitable length and dragging them with his ox-team to the place of building the pioneer notified his neighbors that he was ready for his "raising." These responded promptly and willingly; axemen stood at each of the four corners of the cabin-site to notch and fit the logs, and others rolled them up and placed them in position. In some instances, even for first buildings, larger logs split in halves were used. These were placed with the split sides inward, so as to make a tolerably smooth and perpendicular wall and a more presentable interior. The cabins were covered either with bark, or rived oak "clapboards" that were long rough stave-like shingles. This roofing was held in place by small logs or poles laid lengthwise upon them. Floors and doors were made from "puncheons"—board-like slabs split from logs and hewn comparatively smooth. School-houses and meeting-houses usually were build of logs hewn square, as were most of the "forts." In the beginning this form of construction was called a "block-house," but later the term was more commonly applied to structures raised for defense against attacks by the Indians. If the settler became fairly prosperous, he early gave evidence of his improved condition by building a large cabin of hewn logs. With but few exceptions the pioneer cabins were built without nails or other articles of iron. Fire-places and chimneys were made of sticks, cut from branches or split from logs and heavily plastered with clay; while the window openings usually were covered with untanned skins of some of the wild animals, dressed down to semi-translucent thinness. For clearing away the forest, most of the chopping was done in the winter months. First the underbrush was cut and piled, the logs already down were cut into lengths which permitted them to be dragged by oxen, though occasionally these dead logs were burned into pieces by small fires kept up until the logs were burned through. Timber suitable for rails was next cut down and into proper lengths, and drawn to the lines where fences were to be built; the remainder of the timber then was laid low and chopped into convenient lengths for logging. When all of the underbrush and timber upon a given tract had been cut, it was left through the summer where it lay, and called a "summer fallow," the wood in the meantime becoming dry. In the autumn neighbors would join in helping each other in the work of finally clearing the land, excepting the stumps. The piles of underbrush first were disposed of by fire, then the logs were drawn up by oxen and rolled into heaps and burned. This was the "log-rolling," which in later times became a figurative term that was applied to certain coöperative practices of more or less shady character among national and State legislators, and that still is heard occasionally. At the real log-rollings bountiful feasts for the participants were provided by the beneficiaries, and the "women-folks" of the neighborhood came with their children to help prepare the great quantities of food that were consumed upon such occasions. Next, the rail-cuts were split into rails, the worm-fence was built, and so the beginning of a farm was brought into shape, leaving only the stumps to be burned entirely to clear the land, on which in the meantime crops were planted. In some sections, or upon



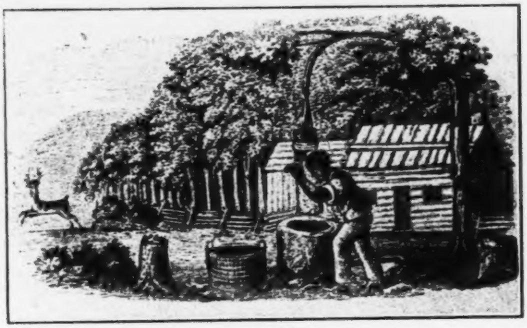
A New Home in the Woods.
(*From Howe's Ohio "Historical Collections."*)



Pioneer "Log-Cabin Lamp."
(*From Howe's Ohio "Historical Collections."*)

some "clearings," not all of the timber was cut down, many of the larger trees being notched around, or "girdled," with an axe, so that they died. This practice of "deadening" the large trees was, in itself, a great saving of labor; but as dead limbs and even the trees themselves were liable to fall in aftertimes and perhaps do mischief, girdling was not generally approved.

The natural increase of live stock, especially of sheep and hogs, under the conditions that surrounded the pioneer settlers in the parts of the country under consideration here, comparatively was slow; and this was due chiefly to Indians, bears, and wolves. Notwithstanding that these Indians long had had knowledge of the animals that white men kept around them, and of the uses to which they were put, the red men had little or no disposition to go into the live-stock business on their own account; and, radically unlike their brethren of the plains, did not covet possession even of horses, for they could make no effective use of these animals in the dense forests that covered that entire region. Nor were they disposed to take cattle for keeping in their villages for the sake of their milk. So, when on the war-path, as they were so often, they killed the settlers' horses, as they did the rest of the stock, at every opportunity, and would make feasts of the carcases whenever they could. Sheep and hogs were objects of especial attentions from bears and wolves, the former having a great fondness for shoats. The pigs had to make their living in the main upon the nuts that fell from the trees of the forest, and as bears and wolves were numerous, as well as good strategists, the pigs led very strenuous lives. The almost helpless and witless sheep had to have about as much watchful care as was bestowed upon the children, and if allowed to wander far abroad were likely soon to be lying down with the wolves —but inside of them. The pigs were trained to respond to the evening homing-call, and all of the stock was kept overnight in strongly-built stables and pens. But if the quarters for the sheep and the pigs were not securely roofed, bears and wolves would manage to get inside by climbing, and if the pioneer, tired by his hard labor of the day before, were not awakened by the bleatings and outcries for help, he would have neither sheep nor pigs next morning. Within a short time after settlements had been established, traders began bringing stock into the country from east of the mountains; but, owing partly to risks on the way, and largely to the scarcity of money among the people, these additions were not of great magnitude during the earlier years.

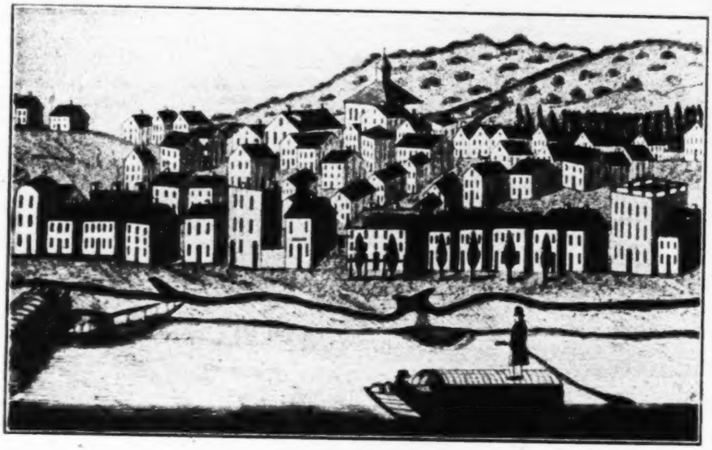


A Primitive Outfit for Crushing Corn for Meal.
(From "Howe's Ohio "Historical Collections.")

Shortly after the introduction of cattle into Tennessee, Kentucky, and Ohio the settlers were gravely alarmed by the appearance of a mysterious disease which, in the absence of more definite knowledge of it, was called "the milk sickness." Cattle would sicken and die without apparent cause, and the milk and sometimes the flesh of affected animals transmitted the peculiar malady to all who had partaken of either. In human beings the strange disease had the character of a malignant form of fever, accompanied by violent retchings and by extremely painful burning sensations in the stomach, and often terminated fatally on the third day. According to an old account, "death relieved the victim after such physical agony as almost deprived the human species of the power of speech, and dumb brutes expressed their suffering by frenzied search for water to cool the thirst which consumed them. Once by a stream, they plunged or fell into it and quickly drank themselves to death."

The disease was not general over the country: it developed in certain districts, and even in localities, while parts around these would remain free from it; and in some years it was absent from the affected sections, and frequently did not re-appear for several seasons. From the first its cause was attributed to some poisonous herb eaten by the cattle, but the identity of this herb the early settlers could not determine. In later times the "poison ivy" was charged with the responsibility, and a remedy was thought to have been found in feeding affected cattle large quantities of Indian corn. But as this plant had, as it still has, a wide distribution, and was not known elsewhere to produce such results, it became evident that the ivy had been unjustly accused; and, as the disease was not always fatal to cattle, the corn diet, while it may have been helpful if applied in the early stages and to the milder cases, became discredited as an infallible remedy by the recovery of animals without it and the death of others with it. The malady appeared in Indiana, also, as settlements advanced westward, but seemed to have been less malignant there than in Ohio, Kentucky, and Tennessee. As the affected parts of the country became more and more cleared of timber and undergrowths and put under cultivation, cases of the disease became less and less common, and eventually the malady ceased from troubling in Kentucky, Ohio, and Indiana, although there were instances of it in each of these States as late as the period of our Civil War, if not in still later times; but the disease continues to afflict some parts of Tennessee. Of the mystery that clings to it, of the extent of its prevalence in that State, and of the plant which is now said to be responsible for it, a recent report (1904) says:

"Tennesseeans have been stirred to a profound sense of interest in the State's mysterious malady, 'milk sickness,' as its deadly re-appearance in certain sections of the State has been followed by fatal results to human beings and to stock. No one has ever discovered the cause of the malady. The fatal sickness is known to a limited extent in several sections of the State, but exists principally near Sparta in White County. It is contracted through drinking the milk of cows that have eaten a certain weed known as the 'milksick weed,' which looks somewhat like clover, and grows thickly on the infected land. But what constitutes the poison in the weed is no more determined to-day than it was when first located by the keen-witted nature-wise mountaineers, who have been its chief victims. It has been ascribed at various times to minerals whose poison is absorbed in the roots of the 'milksick' plant; to a vapor from some fungus growth, and to the action of the dew producing in connection with the life of the plant a poisonous acid. But all of these theories have failed under tests applied by practical science. On the largest infected section known to exist in the limits of the State, 'Milksick Mountain,' in White County, no mineral whatever exists; cattle which ate the 'milksick weed' after the dew had dried, died in agony, just as those which ate when the dew was fresh and sparkling, and the strictest search failed to find any fungus growth whatever."

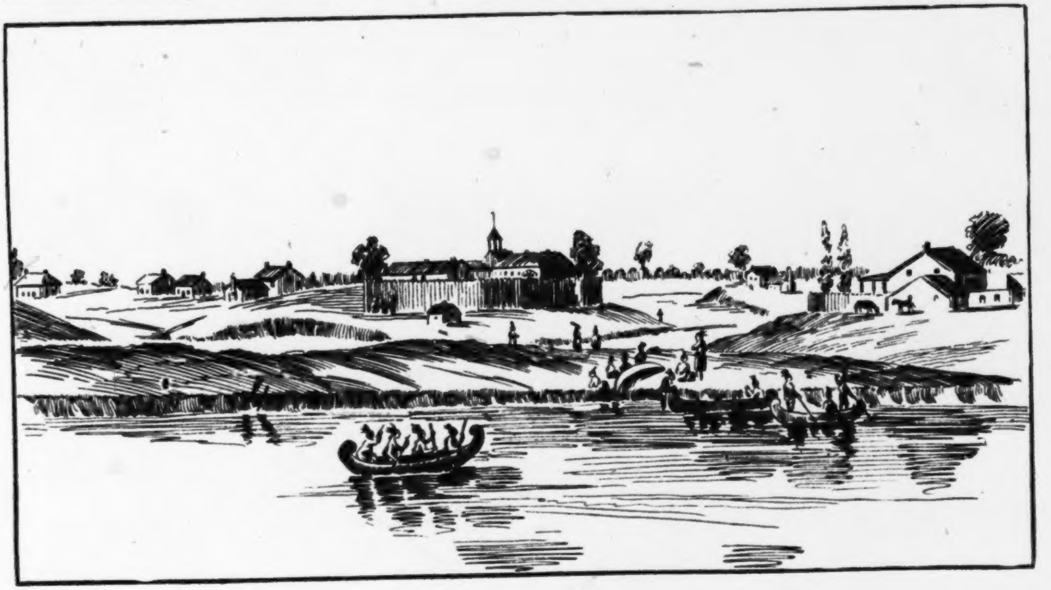


Cincinnati in 1810.
(From Howe's Ohio "Historical Collections.")

The American movement into the West was checked by the war of 1812 with England, but this was due more to the "hard times" brought on by the war than to the military operations directly. However, after peace had been made, the occupation of the country moved forward with great energy, and as it advanced the Indians it encountered and their remaining power to embarrass and obstruct were swept out of the way. In the South, Louisiana had been made a State—the first one west of the Mississippi—in

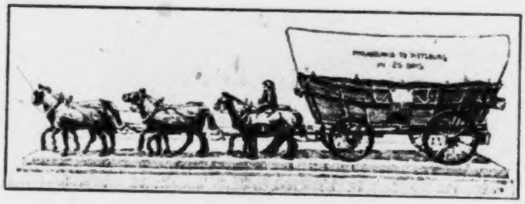
1812, partly as a war measure and otherwise because its population and progress had warranted its admission. Indiana became a State in 1816, Mississippi in 1817, Illinois in 1818, and Alabama in 1819; and when, by the admission of Missouri in 1821, State government had been extended almost half way across the continent, many of the men who had fought for and won the independence of the country still were living. Surely the progress had been by no means slow.

But almost everywhere in the young States west of the Alleghanies, during that period, civilization was brushing not over-tidy skirts against wilderness conditions. The comparatively thin population was dependent, and nearly the whole of it directly so, upon agriculture, the products of which were limited in quantity, as well as in value, by "home consumption" rather strictly construed. From the beginning of these western settlements the lack of transportation facilities had held back the development of the country. In the earlier years most of the settlers' business transactions had been upon a barter basis, and horses, cattle, and pigs were not infrequently exchanged for "groceries" and other "store goods." Large flatboats on the rivers, the so-called "broadhorns," that were built especially for carrying freight, had made an outlet in the direction of New Orleans and to that city for some of the surplus products of the sections of the country adjacent to the rivers. Many of these boats were fitted with stalls for a few head of horses and cattle, while pork usually formed a considerable part of their cargoes. But upon the whole this down-river movement, being slow and relatively expensive, had afforded the pioneer farmers and stock-raisers little encouragement, as their share of the proceeds was very small. The introduction of steam navigation on the western rivers and lakes in the first quarter of the nineteenth century was followed by a great improvement in general conditions in the parts of the country within easy reach of shipping-points, and by the elevation of the hog to a position of much more importance than it had previously occupied; the business of systematic pork-packing at Cincinnati and other western towns having had its birth in that period. But the transportation of living animals cut only a small figure in the general business of the steamboats, and the bulk of the agricultural products that entered into their cargoes was drawn from the countryside along the shore-lines. Far in the interior, where transportation by wagon was the



Chicago in 1820.
(From a sketch by Henry R. Schoolcraft.)

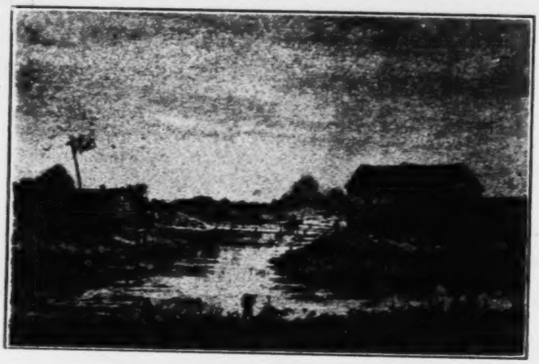
only kind, and draft of loads of much weight, on the "mud-roads" of that time, was next to impossible, it still was hardly worth while to have a surplus of anything. The people in these remoter parts had all the live stock they wanted, but, generally speaking, the value of the animals depended more upon their immediate utility to their owners than on the amount of cash into which they could be converted.



Conestoga Wagon and Team.
(*From Wilson's "History of the American People."*)

For several decades after the beginning of the westward movement the only means of freight transportation between the trans-Alleghany settlements and the East were pack-animals and "Conestoga wagons," the latter being drawn by six or eight heavy horses. These wagons, as well as pack-horses, had begun operations through Pennsylvania to the Monongahela River before the War for Independence, and in later times the wagons extended their service farther west into sections remote from water communication; the pack-horses meanwhile having been displaced. When sailing vessels appeared on the lakes, wagon lines were operated from the foot of Lake Erie to the east. Prior to the advent of steamboats, barge-like "keelboats," carrying more or less freight, and that were "poled" up the Ohio by main strength, had connected with the Pennsylvania wagon-lines. Until the completion of the Erie Canal through the State of New York in 1825, wagon-lines formed the connecting links for the transportation of freight from the central West to the Atlantic sea-board; and they continued to be the only means from a large part of both Kentucky and Tennessee for more than the quarter of a century afterward. The cost of wagon transportation was prohibitive to the bulkier products of the soil, and therefore the down-river markets were the principal outlets. In 1824, wheat sold in Ohio for from 20 to 30 cents per bushel, according to distance from shipping-points, and corn from 7 to 10 cents. About that time it took from sixteen to twenty pounds of butter—"in trade"—to pay for one pound of tea, and four or five pounds to prepay the carriage of a letter to the sea-board. At that time Chicago, which is now the greatest live-stock market and meat-producing center in the world, consisted of the old stockaded, log-built Fort Dearborn, a few cabins, and a population, aside from the handful of soldiers, of less than one hundred; a condition in which it remained but little changed for more than ten years.

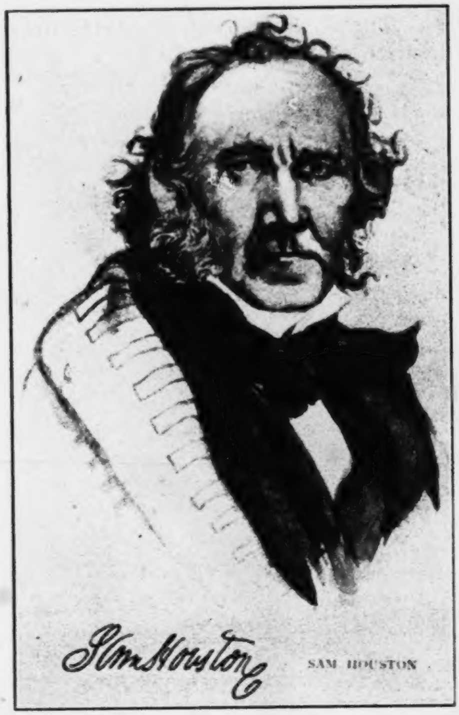
After the admission of Missouri the westward movement paused, and when the people began to find out, or to believe they were finding out, about the "Great American Desert," it stopped and stood still for twenty years or so; public interest in anything farther to the westward than the western boundary of Missouri being in the meantime almost exclusively centered upon the turmoil in the Texas country that had begun in a comparatively insignificant way in the year in which Louisiana was admitted to the Union of American States. As it would be going beyond our reservation to enter here upon any extended account of the military and political achievements that ultimately resulted in making Texas a State of the Union, we shall limit the story to brief consideration of certain of the circumstances that led up to and precipitated the revolution that severed Texas from Mexico and that opened the way for its annexa-



Chicago in 1832.
(*From Fiske's "History of the United States."*)

tion to the United States—one of the momentous events in our national history, as well as in that of the live-stock industry in the West.

The area of Texas is nearly large enough to make five countries the size of England, or more than enough for five States, each of which would be larger than the State of New York. Daniel Webster, who was a pronounced pessimist about everything west of the Hudson River, in a speech in the Senate that was a general protest against Texas, included among his objections the declaration that it was so big that "a bird could not fly over it in a week."



(*From Wilson's "History of the American People."*)

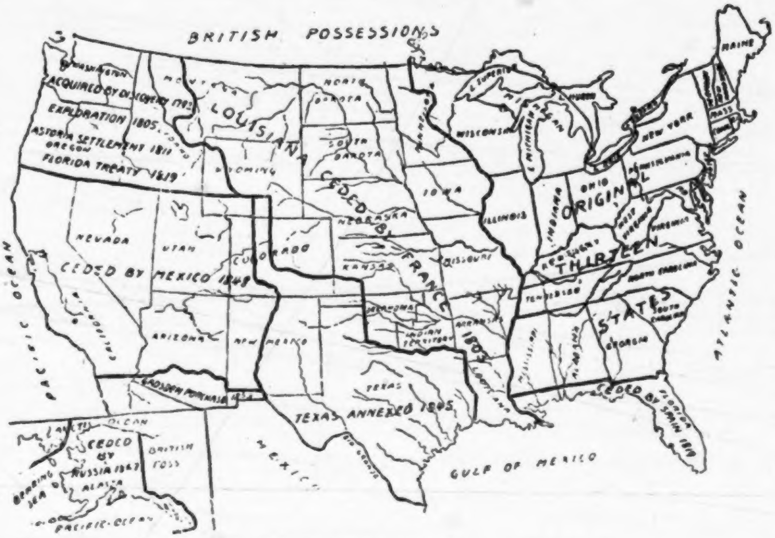
It used to be rather fashionable to attribute considerable Spanish character to Texas in the days of her youth—something similar to that which has so long attached to New Mexico—but the fact is that as a new State it was as thoroughly an American proposition as any in the Union, and more so than some.

An organized movement for its detachment from Mexico, or more properly New Spain, began, as we have said, as early as 1812, when two Mexican officers, Toledo and Guittierez, attached to the Mexican revolutionary cause, and then in the United States, devised a plan for invading the eastern Mexican provinces by the aid of American auxiliaries. About 200 Americans, mostly the sons of planters in the lower Mississippi River country, joined by about the same number of French and other warlike adventurers from New Orleans, led by American officers, Magee, Kemper, Lockett, Perry, and Ross, in that year crossed the Sabine River, routed a body of royalist troops near Nacogdoches, and on the first of November took possession of the fortified town of Goliad without resistance. Although this movement was defeated, it was followed by several others, that likewise were unsuccessful before Mexico declared her independence of Spain in 1821.

By the treaty of 1819 between Spain and the United States, under which the Florida country was ceded to us, and boundary lines in the southwest were agreed upon, the Sabine River was established as the basis of the western boundary of the State of Louisiana, thus giving Mexico an undisputed claim to the entire province of Texas. Anxious to promote the settlement of the country, Mexico, after her independence, adopted a liberal policy toward colonization—but which did not last long—and emigrants in large numbers, mostly from the United States, soon began to move into the eastern and southern parts of Texas, the most fertile of the Mexican provinces. The more conspicuous American pioneer in this colonization was Stephen D. Austin, whose father, Moses Austin, was a Connecticut man, who had visited the country in 1820, and early in the following year had obtained from the Spanish-Mexican government just before its overthrow permission to plant a colony in Texas, which was recognized by the successor Mexican monarchy and later by the Mexican federal government. Moses Austin died about the time his application had been first approved, and the care of the enterprise had fallen upon his son, to whose great ability and indomitable courage much of the early American emigration was due.

But the Mexican rule of that period, in various ways that need not be recounted here, became very irksome before the close of that decade, and conflicts between the American settlers and local Mexican authority led to a radical change of policy on the part of the Mexican government toward the former, that became intolerable within a few years. Organized revolution and war came in 1832, and in desperate battling, sublime heroism, and unstinted sacrifices by the devoted Texan-Americans, the conflict still remains unsurpassed by anything recorded in the annals of warfare.

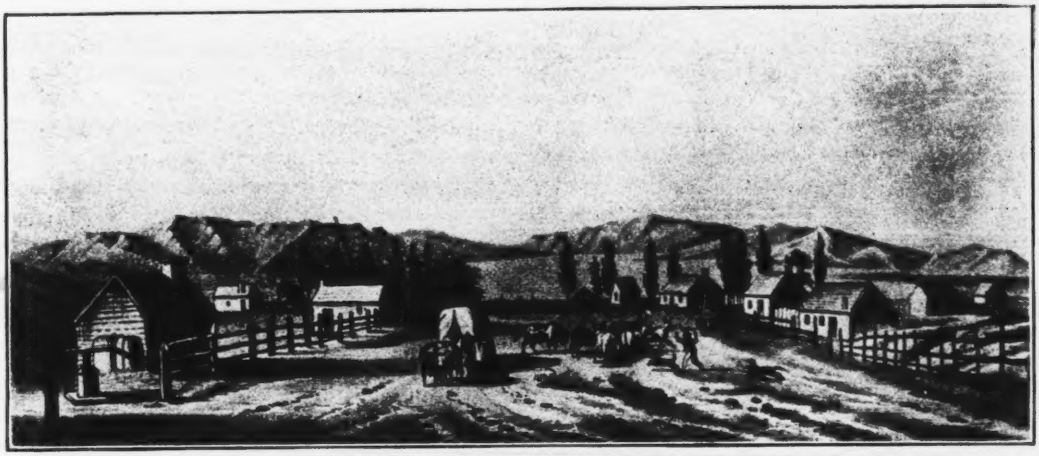
As long as the deeds of patriotic and heroic leaders are remembered by mankind, the names of Samuel Houston, Stephen D. Austin, Travis, Fannin, Crockett, and Bowie will shine in the history of struggles for freedom. Texas won her independence and became the Lone Star Republic in 1836, with General Houston as her first constitutional president; and was recognized as a new and independent nation by the United States in March, 1837. But the country had been devastated and industry brought almost to a standstill. The sorrows of war were present in many of the homes of the young republic, as well as in others that were far away; and in most of them the anguish was deepened by the knowledge that their missing ones had perished in the atrocities of the Alamo and of Goliad, where nearly 600 Texan heroes had been wantonly butchered.


BRITISH POSSESSIONS
WASHINGTON
ACQUIRED BY DISCOVERY 1792
EXPLORATION 1805
ASTORIA SETTLEMENT 1811
OREGON
FLORIDA TREATY 1819
MONTANA
LOUISIANA CEDED BY FRANCE 1803
NORTH DAKOTA
SOUTH DAKOTA
WYOMING
NEBRASKA
IOWA
MINNESOTA
WISCONSIN
MICHIGAN
ILLINOIS
INDIANA
OHIO
ORIGINAL THIRTEEN STATES
NEW YORK
PENNSYLVANIA
MAINE
MASS
VIRGINIA
WEST VIRGINIA
KENTUCKY
NORTH CAROLINA
SOUTH CAROLINA
TENNESSEE
GEORGIA
MISSISSIPPI
ALABAMA
LOUISIANA
ARKANSAS
INDIAN TERRITORY
OKLAHOMA
MISSOURI
KANSAS
COLORADO
NEVADA
UTAH
CEDED BY MEXICO 1848
CALIFORNIA
ARIZONA
NEW MEXICO
GADSDEN PURCHASE 1853
TEXAS
TEXAS ANNEXED 1845
CEDED BY SPAIN 1819
FLORIDA
PACIFIC OCEAN
ATLANTIC OCEAN
GULF OF MEXICO
MEXICO
RIO GRANDE
ARCTIC OCEAN
CEDED BY RUSSIA 1867
ALASKA
BRITISH POSS
BERING SEA
PACIFIC OCEAN

Map Showing Territorial Growth of the United States

As remarked upon a preceding page, the dispute between the United States and England over the Oregon country continued until the treaty of 1846 had been agreed to by the two nations. At various times preceding the treaty, England had assumed an aggressive attitude in the matter, but until 1843 about the only physical evidence of American occupation of the country consisted of the fur-trading post of Astoria, the hunters and trappers connected with it, some independent Indian-traders and other adventurers, and a few missionaries who were trying to evangelize the natives. In 1842 one of these missionaries, Dr. Marcus Whitman, who had gone overland to Oregon several years before, learned that the English were about to make a determined effort to take possession of the Columbia River country. Dr. Whitman believed that the only way to prevent this was to bring in agricultural colonies of Americans, who would give to the American occupation a character more substantial than it had received from the fur-gathering people; and he realized, also, that there was no time to be lost in doing so. In the autumn of that year he set out from Walla Walla on a journey of 4,000 miles—most of the way on horseback—to apprise the Washington Government of the danger. Within five months, after having endured much suffering from hunger, cold, and storms, he reached Washington, where he succeeded in convincing Congress that Oregon was not the rough, inhospitable, inaccessible, and otherwise worthless region that so many people had supposed it to be. He proposed immediately to organize a colony and to lead it to the Columbia River Valley—an undertaking which was promptly sanctioned at Washington. In the spring of 1843 Whitman organized his expedition, and soon afterward started upon his return to Oregon as the leader and guide of a train of 200 families, with horses, cattle, and other live stock. The colony made the long journey without serious mishap and settled in the valley of the Columbia. Many others, similarly outfitted, followed from that year on, notwithstanding that the "Great Desert" commonly was believed to bar the way. From this beginning Oregon became a State of the Union in 1859.

Mexico had not been able to reconcile herself to the loss of Texas, and had maintained an attitude toward the new republic that was equivalent to a state of war, and that had brought on occasional armed conflicts, and caused the United States to threaten, in 1843, to interpose by force of arms to put an end to the harassment of Texas. When Texas was annexed to the United States in March, 1845, the hostility of Mexico was extended to the entire Union, and in consequence of the conditions that ensued upon the Texas border, Congress, on May 11, 1846, declared that by the acts of the republic of Mexico a state of war existed between that country and the United States. Fourteen months later, on September 14, 1847, the victorious American army entered the capital of Mexico, and the fighting was over. Until our war with Spain, the one with Mexico enjoyed the distinction of having been the only war in the history of modern times in which all of the victories were on one side, for the American troops won every battle and in every instance against a larger force. By the annexation of Texas, and under the treaty of peace with Mexico that was concluded on February 2, 1848, the territory of the United States was increased by about 920,000 square miles—an area almost as large as Great Britain and Ireland, France, Spain, Italy, Austria, and the German Empire combined—Texas alone being much larger than either France or the German Empire. Aside from Texas, the immense area embraced the territory of California, Nevada, and Utah, about three-fifths of Colorado, about one-seventh of Wyoming, and all of New Mexico and Arizona except the small addition made to their areas by the "Gadsden Purchase" from Mexico in 1853.



View in Salt Lake City in 1851.
(From Captain Howard Stansbury's "Exploration and Survey of the Valley of the Great Salt Lake of Utah.")

However, the United States paid Mexico $15,000,000 for her territory, beside assuming certain debts of hers that amounted to about $3,500,000 more; and also assumed the debt of Texas of $7,500,000. So the whole cost of the acquired territory, exclusive of the cost of the war with Mexico, was $26,000,000. This was thought by a large number of our people to be an enormous outlay for real estate, and, as it had been incurred through the annexation of Texas, many of them grumbled and growled and said that "Texas" was simply "Taxes" with the letters of the word differently arranged. But after gold had been discovered in California, and the great resources of Texas had become known, the growls and grumbles were heard no more.

While there had been, as we have seen on former pages, live stock, herdsmen, and shepherds in the northern provinces of Spanish Mexico from very early times, and while the California missions had great herds of cattle and flocks of sheep, tended by half-civilized Indian serfs, on the valley pastures of that country in the later part of the eighteenth century, the range-cattle business, as it is and has been known on American soil, originated in Texas after that country was made a State of the Union. Its early history and development there prior to our Civil War are brought to the reader's attention in a following section of this volume.

In 1846 the Legislature of Illinois revoked the charter of the Mormon settlement of Nauvoo in that State. These people had located there in 1840, and after this action by the Legislature they were driven from Nauvoo and gathered at Council Bluffs, Iowa. In 1847 they crossed the "Great Desert" and the "Mighty Mountains" to the Great Salt Lake in the wilderness of Utah, where they hoped to find a permanent refuge. In this hegira there were upward of 2,000 people—the largest company of emigrants that ever moved in an organized body from one part our country to another; and it was fortunate for the emigrants that they were under the command of so strong a personality as that of Brigham Young. With their loose live stock stringing along with their wagons, their train was a large one, and their night encampments presented most remarkable spectacles. They carried with them everything necessary to make them a self-supporting community, and were the pioneer stock-raisers in the Utah Basin. When these people started from the Missouri River they believed they were going to leave the United States forever, for the Utah country in 1847 still was, as the reader will recall, a part of the Mexican Republic. But before they had planted for their first crop they were back under the Stars and Stripes in consequence of some of the provisions of the treaty of peace that formally ended the war between Mexico and the United States.

Eng. by Henry Taylor & Co. Chicago

W. E. Hughes

Colonel William E. Hughes.

Colonel William E. Hughes, of Dallas, Texas, and Denver, Colorado, was born in Morgan County, Illinois, March 15, 1840. During all his active life he has been closely connected with the live-stock business, and he is known in the United States and Europe as one of the most prominent live-stock men of America. Banking and law have also occupied a large share of his attention, and in each of the three distinct branches he has attained a remarkable degree of success.

As a lawyer, first in general practice, and later in the conduct of cases for the corporations in which he has been interested, he has attained eminence. As a banker, too, in different cities and under different conditions of business, he has been equally successful; in fact, he has never been identified with an institution or business which was not successful; and as owner and operator of great cattle, horse, and sheep ranches, the financial results have been uniformly gratifying. It is doubtful whether a similar record in these three different departments of business, each calling for special qualifications and training, has ever been attained by any other man of the West.

It may be truly said that all human history is merely a succession of biographies. The plays upon the stage are acted biographies. The biographies of successful men are full of interest and instruction, and convey an enthusiasm and infuse an energy which are found nowhere else in literature. As the world progresses and intelligence becomes more manifest, the ideas and examples of the great men of business are more closely studied and their influence is more distinctly felt. Who can estimate the effect upon the world of a successful life? If it is true, as some modern thinkers claim, that every successful thought adds to the impulse which is ultimately to make this globe an elysium, indeed, how important to the general welfare are the chronicles of these lives! It is safe to assume that every successful man makes a lasting impression upon many whose characters are forming, and every person who habitually maintains an attitude of hopefulness and confidence, contributes to the upbuilding of the race, and is a benefactor to humanity. It is seldom any man will exert himself unless impelled by the stern demands of necessity. As a brilliant writer said of Cervantes: "It is his poverty that makes the whole world rich."

Colonel Hughes was born on a farm, and early learned the importance of being able to take care of himself. There are natures which blossom under trials, and the conditions in which he was thrown, made it necessary for him to go with the tide or to take hold of the helm and guide the boat with his own hand. Fortunately, he decided to be the captain of his own salvation, and on the frontier of the Southwest, in the midst of the rudest surroundings, in the early cow-camp, on the trail, in the court-room, at the desk of the financier, and in the position of a man of large business affairs, he has placed his reliance upon a calm judgment that seldom fails its possessor and points in the right direction, provided it be wisely nurtured and implicitly trusted. Judgment, after all, is one of the most important of the faculties, and he who has it becomes a prince among men. It is to good judgment that Colonel Hughes owes his success.

His parents, John and Eliza (Rutherford) Hughes, traced their ancestry to Virginia and further back to Scotland and Ireland. The son enjoyed the advantages of attending the public schools of Jacksonville, Illinois, and went as far as the junior year in Illinois College. While loitering about the court-house of Jacksonville, in the years before the Civil War, he was attracted to the court-room, listened to the arguments of the great lawyers of the day, and decided to study law. He heard the debates of Abraham Lincoln and Stephen A. Douglas, in 1858, when they were both candidates for the

United States Senate, and was greatly impressed by the logic and argumentative powers of Lincoln, although reared in a Democratic atmosphere, and through life a Democrat of the old school. His estimate of Lincoln is that he was the one great American, and had he survived the years following the Civil War, his great heart would have found a way by which the Southern States would have been saved the horrors of the reconstruction period and brought back into the Union in peace and harmony.

The noted Quin Harrison murder case in Illinois, in which Lincoln and John A. Logan, then law partners, were attorneys for the defense, and John M. Palmer was prosecuting attorney, aroused great interest in the mind of young Hughes, and may have had some effect in directing his attention to the practice of the criminal law, which he pursued vigorously in his early law experience.

In the spring of 1859, an opportunity presented for a trip to the Southwest. Mr. Hughes, then nineteen years of age, nearly six feet tall and physically equal to any call that might be made upon him, accepted the invitation of a cousin to assist in driving a flock of 3,000 sheep from Missouri to Texas, expecting, if he liked the new country, to take up his home there. The adventure presented charms an aspiring young man could scarcely resist. The long trip across the plains would open a phase of life he had heard about, but had never experienced. There were then no railroads leading into Texas, nor had a railroad yet been built into Kansas City, Missouri. He accordingly reached Kansas City by stage, discovering on his arrival that his trunk had dropped off the back of the coach, leaving nothing but the trunk handle, which was attached by a rope. He soon learned to live comfortably without the presence of a trunk, and three-months' journey across the country to Texas was one of the most interesting diversions imaginable.

Many home-seekers from the North were at that time entering Texas, little dreaming of the momentous conflict that was rapidly drawing near. Northern men were viewed with suspicion, and Mr. Hughes and a companion were rudely awakened at a hotel in Dallas, where they had stopped for the night, and were conducted by a vigilance committee to an upper room of the house. The feeling against Northerners was especially bitter at Dallas, as a large part of the town had been burned down the year before, and the impression prevailed that the destruction was instigated by Northerners. The two sheepmen were charged with being "Northern emissaries, deserving to be hanged." This was by no means an unusual proceeding in these excited times, and the lives of the men were in imminent danger. They pleaded innocence of any evil intentions, and claimed that if a messenger were sent to a point five miles out, he would find a flock of sheep which they had driven from Missouri—a convincing evidence that no hostile intentions were entertained. Proceedings were accordingly postponed until daylight, when the messenger returned, and the prisoners were set free.

This unpleasant introduction to Texas *ante-bellum* ideas of justice had no ill effects on the mind of Mr. Hughes. He soon learned to love the State and its people, identified himself permanently with its interests, ever since has maintained a residence there, and has never voted elsewhere in his life.

During the winter of 1860, Mr. Hughes herded sheep on a range about twenty-five miles from Dallas, studying law at night after the flock had been safely corralled, and occasionally making a trip to town to borrow law books. Rumors of war came thick and fast, and it was evident that a tremendous struggle was at hand—the mightiest struggle that modern times has known and one fraught with consequences of greatest moment to the entire world. Profound questions of government and of the rights of man were to be settled on the battle-field, and hundreds of thousands of men were to give up their lives.

In that mighty conflict the Illinois boy was to perform an important part, and there he gained the title of Colonel that has remained with him through life.

First, however, he revisited his old home in the North. The trip was made on horseback to Kansas City in company with his cousin. There, with his horse, he went aboard a boat destined for points up the Illinois River, completing the journey on horseback. Three months among old companions did not effect any changes in his sympathies, which were for the South, and after the capture of Fort Sumter, he started again southward, with the intention of joining the Southern army. Passing through the lines of the Northern forces, he reached the army of General Price in Southern Missouri, and attached himself to Lucas's battery, with the understanding that he should be transferred to Texas troops at the first opportunity.

He took part in the battle of Pea Ridge (called Elkhorn by the South), and had, just prior to this battle, met the Texas troops and been transferred to the 1st Texas Artillery. Hughes being the only man in the battery at that time who had ever served a piece of artillery in action, or been under fire, was made chief of a piece and ordered with it to the front, to open fire and discover and locate, if possible, the Federal battery, supposed to be upon the wooded heights in front. This he did so effectively that the fire of his own gun was almost immediately answered by a half-dozen Federal batteries from the front and flanks, which had been masked by thick undergrowth. Hughes' piece, one of Lieutenant Boren's section, being in the meantime reinforced by the entire battery of six pieces, maintained its position until it had fired its last round of ammunition, had its caisson blown up by a Federal shell, Lieutenant Boren and his horse killed, and ten of the twelve horses of gun and caisson shot down, and five of the eight men serving the piece killed or disabled.

Young Hughes served for two and one-half years with this artillery command, during that time never missing roll-call, picket duty, or any battle in which his command took part. Immediately after the battle of Elkhorn, he was made permanent chief of piece, and continued in that capacity as long as he served with the battery.

An apparently trivial incident made a vital change in the circumstance of the artilleryman's career and, in the end, placed him at the head of one of the best-fighting regiments of the Southern army. Approaching the town of Camargo, in Mississippi, he rode ahead of the artillery to purchase some tobacco for himself and his captain. General Cabell, now a citizen of Dallas, Texas, was in command of the division, and had issued a general order that all should march with their commands, although there was not an enemy within three hundred miles. The general and his staff entered the town while the infantry was filing by. The eye of the commander caught the uniform of an artilleryman. The order had been violated, and the artilleryman was immediately placed under arrest. Upon the advice of Captain Douglas he put in a written defense at the court-martial that soon followed. The defense was endorsed by Captain Douglas, but the verdict was reduction to the ranks. This was really no punishment, as he had never been an officer, although he had been regularly performing the duties of one.

Soon after this, General Hood succeeded to the command of the Army of the Tennessee. At midnight one night a courier rode up and ordered Private Hughes, of the artillery, to report at general headquarters in the morning. There he met Adjutant-General Lee, who inquired if he was the man who had been court-martialed. "I am the man," was the reply. "We have sent for you," said the adjutant-general, "to offer you the position of captain of artillery."

The honor was accepted; but further promotion was at hand. General Ben Hill, of Tennessee, who was personally acquainted with Captain Hughes, was ordered to assume charge of the advance of the cavalry of Hood's army. "You take an order to report to me," said the general to the captain, "and I'll put you in command of the first organized Confederate regiment of my command."

"I don't know the cavalry drill," was the reply.

"The battalion drill is much the same as the regimental in all branches of the service," responded the general.

This assurance satisfied Captain Hughes, so he took the order to report to General Hill, and was placed in command of the 13th Confederate Regiment of Cavalry. Later, at the reorganization of the regiment, he was elected colonel, and served in that capacity to the close of the war.

Here it may be remarked that the "Confederate regiments," so called, were made up of veterans of various battalions and regiments of the service which had become decimated in the terrific struggles of the war. These brave men came from all the Southern States, representing the survival of the fittest. The record of the "Confederate regiments" as fighters has never been surpassed. As the officers of these regiments were elected by the men, the honor thus conferred may be clearly comprehended by the reader.

The court-martial proved one of the important steps in the career of Colonel Hughes. He took part in the battles of Pea Ridge, Shiloh, Murfreesboro, Chickamauga, New Hope Church, Nashville, Richmond, and in fact all of the engagements of the Army of the Tennessee; and under General E. Kirby Smith campaigned as far north as Covington, where his longing eyes beheld on the opposite shore of the Ohio River, the beautiful city of Cincinnati.

The world requires that a man shall be a master in what he undertakes, and in the great race common sense always has right of way. Colonel Hughes came out of the army a different man from what he was at the beginning. His eyes were opened; he had seen enough bloodshed for one lifetime; and his most welcome vision is the dawning of a day in the history of the world when a parliament of nations shall settle all great disputes that have heretofore disturbed mankind, and the vast armies and navies shall be turned to nobler purpose. Colonel Hughes emerged from the war a persistent advocate of a peace congress; and such is his disinclination to fight his battles over again that it is said he has never attended a reunion of the Confederate veterans. At twenty-five years of age he fully determined to earn a place for himself in peace, as he had in war, and he selected Weatherford, Texas, as his theater of operations.

Weatherford is now a flourishing city of 6,000 people, located in one of the richest counties of the great State of Texas. At the close of the Civil War it was a frontier trading-post. Here the settlers over a wide region came for their supplies, and the outfitting establishments were prepared to furnish everything considered necessary for a cow-camp, hunting party, or new community. The almost untrodden area of West Texas was to be peopled; but first it was necessary to get rid of the buffaloes and then the Indians. For years West Texas was terrorized by roving bands of Indians, and more than once Colonel Hughes pursued the intruders or was pursued by them. The distance from Weatherford to Fort Worth is thirty miles, and many times he drove over the road at night with his wife in order to avoid possible attack in the daytime. Settlers were obliged to be constantly on the alert, and yet hundreds of lives were lost on the Texas border.

There is a glamor of romance in the life of the frontiersman, and it was not uninviting to Colonel Hughes, as he is an ardent lover of Nature, and is happiest in the mountains or on the great plains. In one of his magazine articles he said: "The solemn silence of the plains is awe-inspiring. Nowhere in all creation—the wide ocean not excepted—does man seem so insignificant. Nowhere is nature more a Bible. The summer days are long in these high altitudes. The dawn comes clear and cool and early. The great sun rises big and round and warm. It is a warmth that is not unpleasant till nearly noon-day; then the sun shines hot and for a time drives one to shade of wagon, tent, or awning. By mid-afternoon it is delightfully pleasant again. Then comes the evening; the sun goes down with neither tree nor mountain to cast a shadow and break the twilight. Night follows with its stars and stillness."

He began life at Weatherford as a schoolteacher, and for five months conducted a school for boys. At this time Miss Mollie Dyer, now Mrs. Charles Goodnight, was in charge of a school for girls in the same community. Weatherford has ever since maintained a high reputation as a center of education. While teaching school Colonel Hughes was concluding his study of law, and upon admission to the bar he began practice in Weatherford, where he remained for eight years.

"The criminal law practice," said he, in reviewing his early experience at the bar, "was highly lucrative on the frontier, where men of wealth would often fall out and fight and kill. Human life was not held in great respect in the early frontier days. The settlers of West Texas, at the close of the Civil War, were people of original character, and many of them were of striking individuality. This remark also applies to the lawyers of the frontier. In mental ability they compared favorably with their brethren anywhere. They were, as a class, strong men."

In making trips between Weatherford and Jacksboro attending court Colonel Hughes and his friends carried arms to defend themselves against Indians, and sharp encounters were at any time to be expected. In the spring of 1871 a wagon-train of Henry Warren, who was under contract to supply corn for Fort Griffin and Fort Richardson, was attacked by a party of Kiowas under Satanta, Satank, and Big Tree. The teamsters were tied to the wheels of the wagons and burned to death; the wagons and their contents were destroyed, and the mules were driven away. The act aroused the entire frontier. The three chiefs were arrested when they applied at the reservation for their usual monthly allowance from the Government, and conveyed to Jacksboro for trial. The present Governor of Texas, S. W. T. Lanham, was then District Attorney, and appeared against the prisoners. It was the first time in the history of the United States that Indian Chiefs were ever brought before a civil court; and when the jury brought in a verdict of murder in the first degree a shout of thanksgiving went up from the long-suffering people. This trial was the beginning of the end. The devastating Indian raids soon after ceased, and in 1877 a proclamation of the Governor of Texas announced that the Texas frontier had passed into history, and all danger of Indian depredations had forever departed.

One of the important negotiations undertaken by Colonel Hughes was in obtaining the money due Captain Warren upon his contract and for the loss which had been inflicted. This responsibility he was invited to assume by the private banking firm of Couts & Fain, of Weatherford, who at the time had a mortgage upon the train for large advances made, and so successfully was it executed that he was requested by Mr. Couts to take charge of the bank. He did so, and was thus inducted into the banking business, with which he has since been constantly identified.

In 1873 Colonel Hughes removed to Dallas, which gave promise, since fulfilled, of becoming the largest city of Texas. He carried with him in his buggy $42,000, representing $17,000 of his earnings in eight years at Weatherford, the foundation of his present fortune, and $25,000 belonging equally to two of his friends. This money was being taken to Dallas to start the City Bank (now the City National Bank), the first bank ever incorporated in Dallas, Colonel Hughes having obtained for it a charter by a special act of the Legislature of Texas. Those interested with him in this undertaking were Mr. Couts, C. C. Slaughter, and T. C. Jordan. Colonel Hughes soon was elected president of the institution. At the end of seven years he retired from the bank, and established a residence in St. Louis, all the time engaging extensively in the practice of law and in live-stock pursuits. In 1884 he again entered actively in the banking business of Dallas as president of the Exchange Bank (now Exchange National Bank), he having in the meantime purchased the entire stock of the bank. The growth of his business kept him much in St. Louis, where a larger field presented, and in 1881 he was made president of the Continental Land & Cattle Company, mainly a St. Louis corporation, and one of the largest of its kind in the world, with a capital stock of $3,000,000, and interests in Texas and Montana. For twenty-three years Colonel Hughes has been at the head of this company, whose operations have been upon a magnitude equaled by few live-stock organizations of modern times. The company owns two ranches, aggregating 350,000 acres, in the Panhandle of Texas, on the Red and Pease Rivers, from which hundreds of thousands of cattle have been supplied to the market. This land is now being divided into small tracts for settlers, and will be gradually disposed of to the mighty army of home-seekers, whose approach is transforming the cattle-range into farms. The Continental Land and Cattle Company owns a sheep ranch in Southwest Texas, and for many years operated extensively a horse ranch in Montana. Colonel Hughes has engaged heavily in breeding, buying, and selling live stock and lands for more than thirty years, and it is his opinion that Western land is the best investment in America.

In 1890 a syndicate of the strongest financiers of St. Louis organized the Union Trust Company with a capital stock of $1,000,000. In February, 1901, Colonel Hughes was elected president this company, which has grown to be one of the largest in the United States. When Colonel Hughes took charge, six months after the formation of the company, the stock of the company was selling at 97½, the par value being $100. The price advanced to $350 a share, and the institution is now one of the largest trust companies in the world. Colonel Hughes resigned the presidency on account of other duties. The position was kept open eighteen months, the directors hoping that he would so arrange his affairs as to remain in St. Louis and again accept the position.

In 1898 Colonel Hughes also acquired a residence in Denver on account of the advantages of the climate of the mountains for his only child; and in 1902 he organized the Continental Trust Company, which in the short period of two years has grown into one of the most flourishing young financial institutions of the Rocky Mountain country. For thirty years, notwithstanding his residence elsewhere and business interests widely scattered, he has all the time maintained his home, "Clifton," in the suburbs of Dallas, Texas, which is one of the handsomest in the South. Here a suburban place of more than 400 acres is systematically conducted, and Colonel Hughes and his family endeavor to spend the winter months amidst old friends and congenial surroundings. His residence in Denver at Sixteenth and Grand Avenues is one of the finest in a city of magnificent residences, and contains one of the best libraries in Colorado. The great hall in his Denver home is decorated with battle-axes, blades, pikes, and war-clubs gathered from all parts of the world. He is a Unitarian, so far as his religious views are concerned, and the only pictures that adorn the walls of his library are those of Darwin, Spencer, Tyndal, and Huxley, the study of whose works has been to him a constant delight. A private summer resort of 4,040 acres, also called "Clifton," owned by him, forty miles south of Denver in the foot-hills of the mountains at Perry Park, is not surpassed in beauty by any other mountain resort of the world. Here Colonel Hughes entertains his friends upon a scale commensurate only with great wealth and large social resources. At all of his ranches and establishments he maintains horses and riding and driving outfits adequate for large house parties.

Colonel Hughes is a lover of fine horses and fine dogs, and few men in America take greater interest in these animals or have owned a larger number of them. Coaching, the horse and the dog are his diversions; and such is his kindness to all domestic animals that they respond instinctively, and a complete sympathy exists between him and even his most nervous and spirited horses. The thoroughbred and the Oldenburg coach horses are his favorite breeds, and it is doubtful whether any man understands and appreciates the horse better than he. As a coach and four-in-hand driver he is matchless, and as such he has carried off prizes at a number of the great horse shows of America. He is a thorough admirer and breeder of pointer dogs, and enjoys nothing more than a day's wing-shooting over them. He travels thousands of miles driving and riding across country for pleasure following the chase or upon hunting or fishing expeditions. His skill as a wing-shot has brought him a number of trophies and his love of nature is so great that when the fever seizes him, he closes his desk and is up and away across country driving a spirited team or with dog, horse, and gun, seeking health and recreation far from the perplexity and strife of professional or commercial life.

In his long trips overland Colonel Hughes rides in a hunting-coach, made through special order by one of the great overland coach-makers. He carries provisions, tents, saddles, guns, dogs—in fact, everything necessary for camp or out-door sport—and on these trips he never stops at a house or a hotel. One of his summer coach excursions extended from the Gulf of Mexico to Montana, through the cattle country of the great plains. An illustrated article entitled. "Through Cowboy Land in a Wagon," which he contributed to one of the magazines, indicates that had he turned his attention to writing for the entertainment of a wide and growing class of readers who appreciate the beauties and teachings of nature, he would have gained a permanent place in literature. During his coaching and hunting trips he invariably occupies the box and drives, regardless of weather.

It is his nature to go from one extreme to the other, and when he leaves his office he leaves every business care behind him, and enters into the spirit of play with all the zest of a youth of fifteen. Owing to his ability to enter so fully into the simple and natural pleasures of life, Colonel Hughes enjoys a fullness of health known to few men. His capacity for mental application is the marvel of his friends, and gives him an advantage as a lawyer, as he is thus enabled to go well to the bottom of every subject. He never enters the court-room until he has made complete preparation, and when he has concluded his address (to court or jury) there is little of real importance left unnoticed or unsaid.

In criminal, commercial, or land practice he had been equally successful. One of his recent victories was in 1903, when he gained a case involving title to 50,000 acres of land from the State of Texas, claimed originally by squatters, and doggedly contested in the Federal Courts, finally winding up in the Supreme Court of Texas, with the State as the party plaintiff, where the positions of Colonel Hughes were fully sustained. It has been his custom in all his business career to manage his own legal cases and those of his corporations, as he found it easier to do this than to acquaint other attorneys with the facts as he knew them, to say nothing of the law. As a public speaker he is clear, logical, forcible, convincing, and he always talks to the point. He has no patience with subterfuges or evasions, either in the court-room or in business, and is a staunch believer that the only real victory is the one gained through straightforward and honest methods. As a soldier, he was recognized by those who fought with him as one of the boldest and most dashing fighters of the Confederacy, and this characteristic has never departed from him Lawyers who have been pitted against him in great cases will recognize the truth of this assertion.

To enter fully into the opinions, the actions, the life-career of a man possessing the marked individuality and varied abilities of Colonel Hughes would require a volume. His range of vision covers all the period of the development of the live-stock business, and in this development he has been a leading factor. His first partner, in the cattle business was Colonel C. C. Slaughter. One morning in West Texas the partners awoke to find that the Indians had stolen their horses, and they were obliged to walk seventy-five miles to get a little team of mules to draw the coach in which they had been traveling. On another occasion, in company with the same partner, riding jaded horses, on the plains near the head of the Colorado, the eye of Colonel Hughes noted objects moving in the distance. In a short time the objects drew near, and proved to be a large party of Indians, homeward bound from a horse-stealing expedition among the settlements. It was a critical moment when the Indians discovered the lonely white men, and the savages halted and discussed the situation. To attack and kill the two men would have been the work of but a few minutes, and there could have been only one result had the charge been made. But, to the inexpressible relief of Colonel Hughes and his companion, the enemy withdrew in haste. The Indians had concluded that a large party of frontiersmen was near and that they would be led into an ambuscade if the two supposed scouts were attacked.

Shortly after settling in Weatherford, Colonel Hughes, with his then law partner, Colonel A. J. Hood, operated salt works in Shackelford County. Negroes were employed at the works, and their Sunday amusement was to hunt with bull dogs weak buffaloes that had been crowded from the great herds for their hides, and kill them with a knife. The dogs were trained to seize the huge animals by the nose and to hold on while the work was completed by a negro with the aid of a butcher-knife. The buffaloes were old bulls that had been driven from the herd, and came near the camp where the grass was more abundant than it was farther out on the plains, then grazing ground of the main herd.

Colonel Hughes was engaged in some large land deals. He at one time came within fifty cents an acre of buying the entire Adair Ranch of Texas, and later he declined a liberal offer made by J. J. Farwell, of half the Capitol Syndicate Ranch of 3,000,000 acres, the offer being made with the proviso that Colonel Hughes should assist in building the capitol of Texas. He gained a correct impression of the value of land in the plains region, and large areas which he bought for fifty cents an acre are now in the market at $5.00 to $7.00 an acre.

In 1868 Colonel Hughes was married to Miss Anna C. Peete, of Fort Worth, Texas, daughter of an old Alabama family. One child, Eliza

Clifton Hughes, brightened the household and became the wife of John W. Springer.

Colonel Hughes has passed through the extraordinary changes from the buffalo camp to the crowded metropolis; his theater has extended from the Gulf of Mexico to Montana; and he has been personally acquainted with most of the noted and picturesque characters of the South and West during the great formative period. He has traveled extensively in the United States and Europe, notwithstanding his business responsibilities, at all times exercising an energy and an independence and a self-reliance that were inherent in him even as a boy. Always a close observer of men, an omnivorous reader, and a student so faithful that he carried his law books in the limber of his cannon during the war, he has gained a mass of information that has been to him a constant solace and refreshment. His knowledge, however, has not all come from books. An observant writer has remarked, "Intelligent men of business are the most sensible men in the world"; and any person who goes about with his eyes and ears open will learn that there is a wisdom born in some men that transcends the learning of the schools. How often do we meet this in old cowmen! Through the harmonious blending of these important elements is produced the invidual who directs the affairs of the remarkable twentieth century.

The Texan Development of the Range Cattle Industry.

American Cattlemen but Little Indebted to Mexicans.—A Typical Old-Time Texas-Mexican Stockman.—Importance of the Steam Engine to Stockmen.—Great Differences Between American and Mexican Purposes in Early Stock-Raising.—Proscriptive Spanish Policies.—Exaggerated Former Accounts of Mexican Herds and Flocks in Texas.—Increase of American Population in Texas After 1825.—Some Alleged Causes of Estrangement Between the Americans and the Mexicans.—Character of Early Range Cattle in Texas.—Beginning of Range-Herding by Texas-Americans.—Acquisition of Land Under Texas "Head-Rights."—Trailing Cattle to California.—Pioneer Cattle-Shipper by Steamship.—Early Trail-Herds for Northern Markets.—Number of Cattle in Texas in 1860.—Demoralizing Effects of the Civil War.—Mortality Among Texas Cattle During the War Period.—Abandoned Herds Running Wild.—Pioneer Railroads of Texas.—Influences of the Spanish Missions Upon Texas Indians.—The Texas Tribes and the Long Warfare with Them.—Range Stockmen's Part in the Strife.

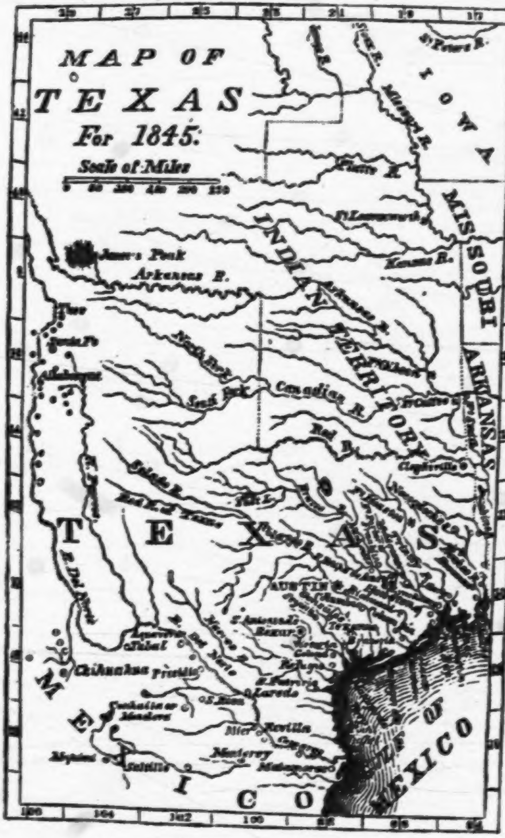
It is often said and frequently has been written that the live-stock industry, as carried on by Americans on our western plains was taken over in well-matured form from the Texas-Mexicans among the acquisitions that came with Texan independence; and with this belief there has run an implication that Americans merely have enlarged it in extent of country occupied and in magnitude of results attained, without otherwise making much change in its general methods and purposes. At most there is but little of this that is more than nominally true, for, in the development of the range-stock business to the dignity of an organized industry the work of our people had to go much further than its mere extension over the country and the increase of numerical results.

From the time of Cortes, stock raising had, of course, been of vital importance to the Spanish people in Mexico, but even in so late a period as that of the Texan war for independence their ways and means of managing it were but little unlike those of Abraham, and therefore the Bible would have supplied the American pioneers in Texas with about as much practical knowledge of the business as they ever acquired from their Mexican neighbors. But, as a matter of fact, it was not necessary for them to go to school anywhere or to anybody, for they had been stock-raisers before they went to Texas; and the utility of the great natural pasture-lands spread out before them for the rearing of stock in large number was easily and plainly to be seen. The opportunities that the country afforded for such a business were widely open to application of common sense and energy, and there is small risk in saying that it would have developed, about as it did, if there never had been a herd of Mexican cattle nor a flock of Mexican sheep on Texas soil.

Of the typical Texas-Mexican stockman, even in so late a period as that in which Texas was annexed to the Union, the French missionary, the Abbé Domenech, in his "Missionary Adventures in Texas and Mexico," says:

"When the ranchero is not either resting or amusing himself he mounts his horse and canters over the plains and through the woods to see his herds, to visit his friends, to buy provisions, or assist at a feast, a baptism, a marriage, or join in the fandango; but the ranchero never walks. Had he only half a mile to go, he does so on horseback. His horse, of which he is very proud, is his inseparable companion. He is content with a wretched hut for his residence, while he decorates his saddle and bridle with gold and silver ornaments. At home he is all filth; mounted on his horse he wears the gayest attire. Then he dons his broad-brimmed hat, lined with green and trimmed with an edging or chain of gold. He wears a clean embroidered shirt, and blue velvet trousers with broad facings of black, beneath which, through the extremities, may be seen his wide white drawers, while a blue scarf of China crape encircles his waist, and huge silver spurs clank at his heels. The ranchero tills the soil to some extent, but herds of oxen, horses, goats, and sheep make up the bulk of his fortune.

This kind of income costs him little labour; and therefore does he like it so much. The pasture-lands are rich, fair, and numerous; and the cattle roam over them at large. From time to time the ranchero goes to see them, to know what horse he may sell at the next fair in order to buy dresses for his children's god-mothers—what oxen will furnish most *tassejo* [jerked beef], and what lamb will meet the expense of a marriage or baptism feast.".



(*From Wilson's "American History."*)

It is evident that in the hands of this picturesque gentleman and his tribe the stock business in Texas would have slumbered on indefinitely in primitive simplicity.

While the live-stock industry on the range, as we know it, was worked out by our own people from the beginning that they had made in Texas about the time that the Lone Star Republic became a State of the Union, they could not have advanced it far without the aid of the new methods of transportation that were in process of evolution in that period. At first thought, the steam engine does not appear as a necessity to a herd of cattle grazing on the plains, but if we were without it and had nothing to take its place and do its work in transportation, there would be few herds of cattle on the plains. But it was not until after our Civil War that steam transportation on land became available even at the border of any part of the open range country, and upon water it was so only to a very limited extent; and therefore the live-stock industry on the range in Texas was kept within a comparatively narrow field of operations in the earlier period.

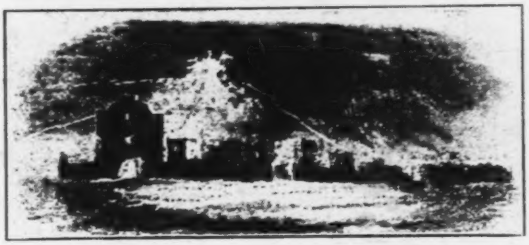
The great difference between the live-stock business on the plains as conducted by Americans and as carried on by the Spanish-Mexicans, in New Mexico and Texas from early times down to the close of our war with Mexico, and in southern California during the mission era there, lies in the fact that the former, from their beginning in it, reared cattle principally for their beef, and when they took up with sheep later it was with the well-defined purpose of producing mutton as well as wool. The latter, whatever they might or might not have done under more favorable circumstances as to means of transportation, were handicapped with respect to these by the conditions of their period. After they had supplied the demands of the local markets of their comparatively small population, which, furthermore, were under warm climates that repressed the consumption of meat in large quantities, their only other source of income from their herds and flocks was that of the sale of hides and tallow from the cattle and of wool and pelts from the sheep. As the animals slaughtered for local meat-consumption also supplied about all that the simple wants of the mass of the people required in the way of hides, pelts, and tallow, the only other outlet for these and the wool was in exportation to Europe in small, slow-going Spanish freight-tubs under sail.

As at the missions in California, so elsewhere in Mexico, thousands of cattle were slaughtered for their hides and tallow for export, the beef going to waste because there were no practicable means of exporting it and no home market for it. Upon any business-like basis, as we understand that term, there could be no profit in raising cattle on the range or anywhere else for their hides and tallow, even for home consumption, to say nothing of exporting the products at considerable expense; but this was all that these people could do with their surplus stock, and therefore by whatever amounts they received for the exported stuff they were just that much ahead.

Under these conditions the usccessive clips of wool made sheep proportionately more important than cattle so far as financial returns were concerned, but after freight and other charges were paid, the net results from a single exportation of any of these products were small; and, although the pasture cost nothing, had anything more than a beggarly allowance been made for the labor involved in producing these articles of export, the transactions would have resulted in loss. The California missions accumulated large sums of money from heavy and long-continued exports of hides, tallow, wool, and pelts that cost them nothing, for these were produced on free grass by tamed Indians, who practically were enslaved, and who also produced without expense to the missions, the food that they and their masters ate and the scant clothing that they wore; but these accumulations were due to the magnitude of the exports, to the aggregation of the comparatively paltry sums received for the products of each animal under conditions not comparable with those under which the ordinary Spanish-Mexican stockman reared cattle and sheep in the period before our war with Mexico.

In much of what has been written about Mexican operations in live stock in Texas while that part of our country was a Mexican province, many great exaggerations have appeared. The Mexican population never became very large, nor did its herds and flocks. As stated on an earlier page of this volume, there were less than 5,000 people of Spanish origin in Texas in 1810, at which time the country was almost unknown to the mass of the people of the United States.

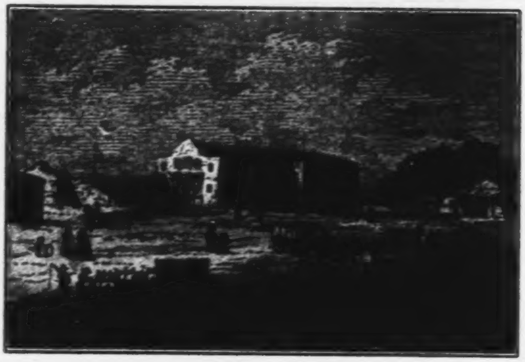
After the United States had purchased the French "Province of Louisiane" it became the policy of Spain to limit the northward range of her settlements in Texas and the northeastward of those in the New Mexico country and to interpose between these and the American southwestern frontier a wilderness barrier, over which the plundering Comanches and other warlike and predatory tribes of Indians were to be left to roam without Spanish interference, and which was to be guarded vigilantly against the incoming of American emigrants to disturb these Indians in their possession of the barrier region. So jealous of foreign influence were the Spanish authorities at that time, that for a few years after the United States had acquired Louisiana, they made it a capital crime for a foreigner to enter any of the Mexican provinces without a license from the King of Spain—a provision that was intended to protect their northeastern frontier from encroachments by Americans; and such was their dread of their American neighbors, that it was a favorite saying of a captain-general of one of the eastern Mexican provinces that if he had the power he would prevent even the birds from flying across the boundary line between Texas and the United States.



Ruins of the Mission at Goliad as they Appeared in 1859. (*From Barber's "Western States and Territories."*)

The conditions in Texas during the twenty-five years of turmoil between the first attempt to detach the country from Mexico in 1812 and its achieved independence in 1836 were not conducive to any great increase of Mexican population nor of Mexican herds and flocks; and therefore when Texas joined the family of nations the number of her Mexican people was not large, nor had they anything like the great number of cattle and sheep with which they have so often been credited.

After 1825 the increase of American population in Texas proportionately had been much greater than that of the Mexican, and in ability to do things and to develop the resources of the country, and to make it attractive to still more people, the disparity was beyond comparison. We have an example of the rapidity with which Texas was being "Americanized" in the period between Mexican independence of Spain and Texan independence of Mexico in the growth of Stephen D. Austin's colony that was planted in southern Texas between the Brazos and Colorado Rivers in the year (1821) in which his father had received permission and a land grant for it from the Spanish-Mexican government. Notwithstanding the various obstacles it had encountered in the first two or three years of its existence the prosperity of the colony was so great that before the achievement of Texan independence it embraced a population of 10,000 people. In many other parts of the province a corresponding increase in the number of American inhabitants had come to pass during the same time. As early as 1830 it was estimated that there were at least 30,000 energetic and industrious American colonists in Texas.

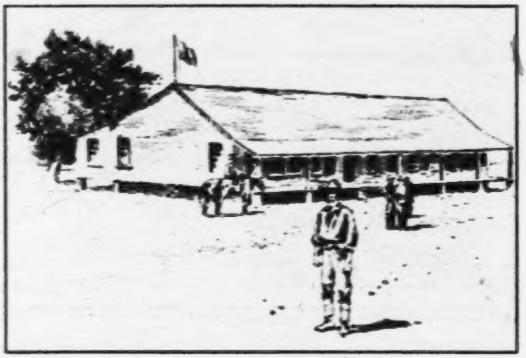


The Alamo, San Antonio, as it Appeared in 1859.
(From Barber's "Western States and Territories.")

Another rather common belief with respect to the pioneer operations of Americans in the range-cattle business in Texas is that the stock with which they began was almost wholly, if not entirely, of the Mexican breed. This was not so, for the general run of cattle in Texas by the time that Americans began range-herding there as a business separate and distinct from agriculture, proper, represented to a large, if not a predominating, extent, a mixture of Mexican with stock from our southwestern States. While the latter was of the ordinary scrubbish variety of that period, it was, at least, as good as the other and probably better; the mixture of the two later becoming typified by our strenuous old-time range friend, "the Texas Steer," who also had in his make-up some of the blood and much of the spirit of the Mexican stock that constituted the "wild cattle" of the plains, for many of these eventually were incorporated into the range-herds.

A large number, a majority, in fact, of the early American settlers in Texas had gone there to establish themselves in agriculture, and some of these, including members of Austin's colony, introduced Arkansas and Louisiana cattle among those that they obtained from the Mexicans already in the country. With later immigration, and especially with the heavy movement that followed immediately after Texan independence had been won, there came more and more of this outside stock, and therefore by the time of Texan annexation there had been a rather general blending of the American cattle with the Mexican breed. It was this mixture, and not the unchanged Mexican stock, that may be said to have characterized the herds of the pioneer American range cattlemen in Texas; and while it represented one of the minor among the many changes that had been made in the country, the process, unlike that of the evolution and introduction of highly-bred stock, was one that from its nature could have but little of the historical element in it.

No particular time, such as that of the year, can be assigned to the beginning of range-herding by Americans in Texas as a business entirely separated from that of farming. They gradually grew into it, about as the boy grows into the man, without leaving any apparent line of demarcation. During the earlier period in the American-made history of the country, stock-raising by Americans, as in th States, was a part of the business of the farmer, and had to be kept almost entirely within the narrow limitations of the local demands—the mere home consumption. While these conditions lasted there were no herds of cattle in American or Mexican hands comparable in size with those that came into existence after the annexation of Texas. In this earlier period there was scarcely any outlet for surplus Texas cattle—no satisfactory way of getting them to a wholesale market. Indeed in that era such a thing as a wholesale market for cattle in the present-time sense was unknown. While New Orleans was the metropolis of the entire southern and southwestern region and was within driving distance of eastern Texas, yet comparatively it was a small place and could readily obtain its beef supplies from parts of the country nearer to it.



The First Capitol of Texas.
(*From Wilson's "History of the American People."*)

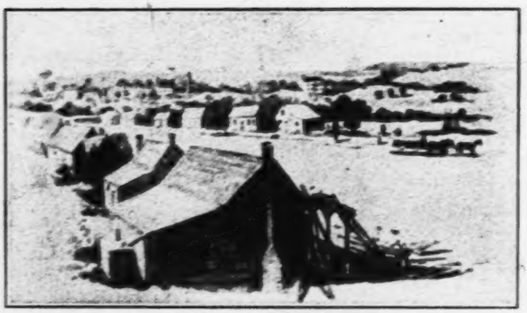
In that period some Texas cattle were slaughtered for their hides and tallow, which were exported from the coast in sailing vessels. But nearly all of this was done by Mexicans, and most of the stock so disposed of was rough. The financial returns from this trade were not sufficient to induce many of the Americans to engage in it and some were averse to it because of its wastefulness.

There is no record or other evidence that any considerable number of Americans in Texas took up with range-herding of cattle as a business entirely apart from agricultural operations, until shortly before the republic's annexation to the United States. Even then it was in a small way, if comparison be made with what they were doing ten years later, for it was not until the time of our war with Mexico that general conditions changed for the better and markets became enlarged sufficiently to promise an important future for the business, which theretofore commanded no more than a moderate amount of attention.

The pioneer American range cattlemen in Texas had no occasion to go far from the settlements with their herds and to isolate themselves, as they did in after years. The wild pasturage in the eastern and southern parts of the country was of amazing richness, and on it a cow could stretch her storage capacity without moving more than a few yards. This opulence of grass enabled the cattlemen to keep within reasonable hailing distance of the exceedingly picturesque variety of "civilization" that prevailed in Texas in the nineteenth century '40's.

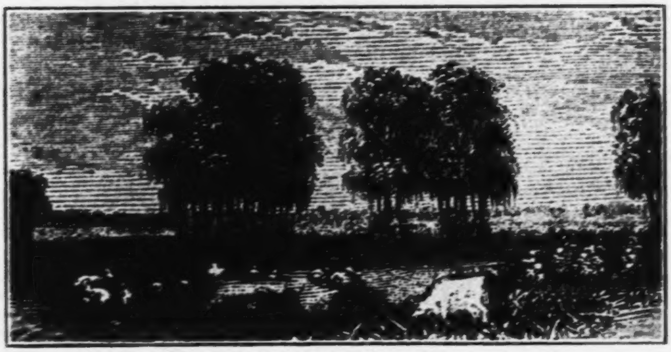
In 1848 it was "estimated" that Texas had a population of between 350,000 and 400,000, Indians not counted, and Mexicans decreasing. Among the thousands of immigrants who entered Texas between 1845 and 1850 there were many who saw and appreciated at once the opportunities presented by the immense natural meadows, and joined those of their countrymen who had previously begun to utilize these for range cattle-raising on the American plan. Before the close of the decade this had become firmly established and was generally recognized as a separate industry that had opened a new and broad field for American energy and for the investment of American capital.

However, American "energy" was not always mindful of the rights of others. Some of the immigration in that period flowed westward through southern Texas into the valley of the Rio Grande and dispossessed many Mexicans occupying the eastward side of the valley, of property that had been theirs for generations. Sometimes this was done by forcibly taking possession of their property, but in most cases it was effected by putting "Texas head-rights"



Main Street in Austin, about 1845.
(*From Wilson's "History of the American People."*)

on the land. These head-rights were grants issued by the State of Texas, usually covering 640 acres, or a mile square, though in some instances they called for very large tracts. They were issued to men who had served in the Texan conflicts with Mexico, like the old "military land warrants" of the United States, and also to many original settlers. These certificates were bought and sold, and the holder of them might locate his land where he pleased, unless it already was occupied, or in lawful possession of another. But many of the American immigrants did not recognize Mexican possession as being "lawful." Armed with these head-rights, Americans entered the Rio Grande Valley and in repeated instances located them on property which for a century had been in the quiet possession of the descendants of the old Spanish colonists. The latter, hopeless of the results of litigation, and sometimes in fear for their lives, abandoned their homes and sought a refuge on the Mexican side of the river. By use of these certificates large tracts of land could be and were acquired and were afterward devoted to stock-raising. Large districts were pounced upon and entirely covered by Texas head-rights, upon which present-time titles to the land are based.



The San Jacinto Battlefield.
(*From an old print.*)

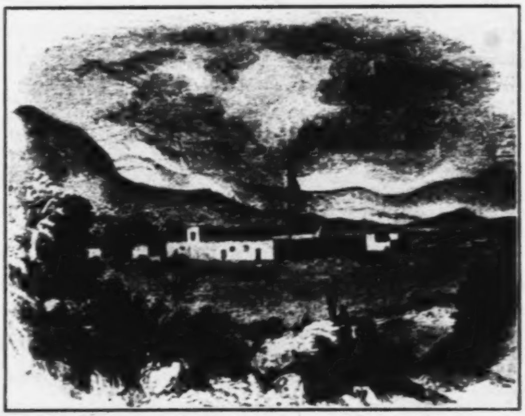
The great stampede of fortune-seekers to California within a year or two after the discovery of gold in that country, in the spring of 1848, a few weeks subsequent to its cession to the United States by Mexico, was followed soon by a pressing demand for food supplies for the army of gold-hunters, the necessities of life having risen to fabulous prices. These conditions there in 1850 induced some of the Texas stockmen to try the experiment of driving beef cattle to the new gold regions; a distance of 1,500 miles or more, through an almost unknown country. The general route followed by most of them was by way of El Paso and thence across to and through the country drained by the Gila River to southern California, and up the valley of that State to the mining region. Though many dangers and difficulties beset these men and their droves, and while some met with heavy losses of stock on the way, the undertakings, generally speaking, proved profitable to those who engaged in them. These were the first long-distance drives in the history of the range-cattle business. Others followed, but as the conditions in California became relieved, the profits on cattle driven from Texas at much expense and serious loss of stock, fell off, the trade declined, and within a few years ceased to be of importance.

About the time that the first movement of Texas cattle to California was made, James Foster began shipping prime-beef steers by steamship from Indianola to New Orleans. If it be true, as the story goes, that his initiative shipments sold for but $10.00 per head and that he "was elated over the excellent sales he had made," it is evident that the men who had raised and fattened the steers could not have been very much puffed up by their share of the proceeds. However, the trade increased and prices gradually rose within a year or two to $16.00 for choice, well-finished steers — the pick of the lot. But as nothing but the best was taken, leaving all of the inferior grades, and the cows as well, to accumulate, the stockmen were little, if any, the gainers by Foster's operations. He was not only a very shrewd and prompt business man and a pioneer in shipping cattle by sea-going steamships, but also a pioneer in the application of the "trust" theory, for, early in his proceedings, he acquired control of the entire stock-carrying capacity of the few steamships then engaged in the New Orleans-Texas trade, and by this means is said to have continued almost to monopolize the Texas output of high-grade beef steers until the outbreak of the Civil War.

By the middle of the decade the range-cattle business had attained so great a development in Texas, entirely independent of farming, that, from its picturesqueness and the impressiveness of the large numbers with which it dealt, it had become commonly regarded by the public as the characteristic industry of Texas, which now had fame as "the great cattle State." The open country in which most of the herds still grazed, was well within the eastern and southern parts of the State, and was as good farming land as the sun shines on in his daily course. This land in after-times was cut up into farms. The buffalos had withdrawn from every part of the coast region—which was usually considered as extending inland a hundred miles or so—some twenty-five or thirty years before, and had disappeared from the northeastward section of the State around 1850; having retired into the interior where very bad desert-conditions were commonly supposed to prevail. The population and commerce of New Orleans was having what was considered in that period to be a very rapid growth, and the city of Mobile was developing into a stock market of some importance; but the increase in cattle in Texas was keeping ahead of the demand for them, and a new outlet for the surplus had to be sought.

In 1856 a movement was inaugurated to reach northern markets by driving, and in that year several large herds were trailed into Missouri, some of them going to St. Louis, where they were sold at prices that afforded a moderate profit. These were the first of "the northern trail-herds," which, fifteen years afterward, assumed their memorably great proportions. The initial northward movement of 1856 was followed in 1857 by more and larger drives from Texas, some of which were to Memphis, but most of them to St. Louis; although there is a record of one herd of that year which crossed the Missouri River at Independence, Missouri, and was driven to Quincy, Illinois, where it was sold at what was regarded as the "good price" of $25.00 per head in gold. These drives, excepting those to Memphis, were from the northeastward parts of Texas, through the eastern border of the Indian Territory to southwestern Missouri, whence they were directed as the ultimate destination required. This northward movement was continued in increasing magnitude and promise until interrupted by the Civil War.

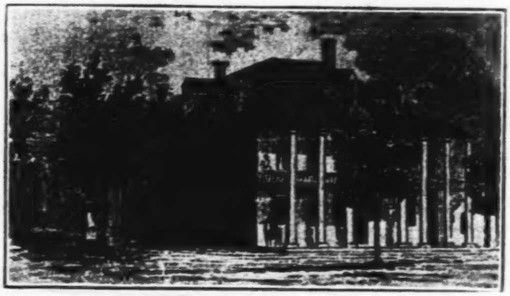
In that period some attempts were made to find a market for Texas cattle in Mexico also, and a considerable number of herds were driven into that country. But Mexico had a large stock of cattle of her own, and therefore these ventures that did not rise to great importance, were not in the main satisfactory in results.



United States Military Post at El Paso, Abandoned in 1851.
(From Bartlett's "Narrative of Explorations" in 1850-'52, by the United States and Mexican Boundary Commission.)

The questionable census of 1860 credited Texas with about 3,500,000 head of cattle. However near to or far from the truth these figures may have been, the actual number was very large in proportion to the population of the State; and at that time there were several ranches within its borders which, for the number of their cattle and the extent of their operations, would have been conspicuous in the period of the great open ranges and big herds of farther-Texas, from twenty to twenty-five years later. But the accessible markets still were proving to be insufficient to absorb the continually increasing supply. It seemed that everybody in Texas had cattle to sell, and there was a general feeling that the State was heavily overstocked. Moreover, prices, partly because of the abundance of stock, and partly also in consequence of disturbed political conditions, were low; though the death-rate among range cattle during recent unfavorable seasons had been of an extent sufficient to cause serious apprehensions. Sheep-raising in the State, while it was, as it had been from the period of American settlement, of much less importance than the range-cattle industry, had been increasing in magnitude year by year, and a considerable number of Texans had largely engaged in it. However, so far as general operations in it upon the open range were concerned, it still was so much identified with the Mexican part of the population that when the average Texan spoke of "range stock" he meant "cattle."

The Texas range-cattle of that time, though superior to the unchanged Mexican, still were of a kind that would make the hair of a present-day cattleman stand on end and quiver. But they were neither better nor worse than reasonably should have been expected from the combination of the qualities of the old Mexican rabble with those of the "Arkansas Travelers" and "Louisiana cane-brake splitters" that were conspicuously present in their make-up. Long of leg, as well as of horn, and light-bodied, they were so nimble of foot that many of them could run about as well as a deer, and are said also to have been the most prolific causes of profanity among men, that ever lived upon the face of the earth. The young and even the middle-aged when well fattened made pretty good beef, but the old-stagers were next to invulnerable.



The Second Capitol of Texas, at Houston.
(From an old drawing.)
At the outbreak of the Civil War the building was used as a public house, known as the "Old Capitol Hotel."

The Civil War brought utter demoralization upon the cattle business in Texas, as it did upon nearly every other occupation except the revived one of soldiering. The mouth of the Mississippi River and the seaports of the State were promptly blockaded by the Federal navy, and then there was a rush of cattle from Texas by land to New Orleans to be sold for whatever could be got for them in money, but the market was more than glutted, and many of the herds barely realized enough cash to pay the expenses of the overland trip. From the beginning of active hostilities until the spring of 1862 there continued to be an eastern outlet for Texas cattle through Louisiana and southern Arkansas to New Orleans and to other points on the Mississippi, New Orleans being the principal gateway. In the autumn of 1861 and during the following winter a large number was driven to the river and from there distributed to the ever-hungry soldiers.

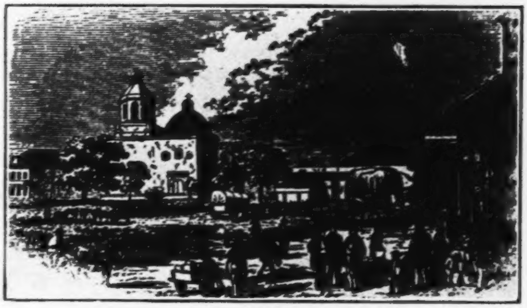
However, this trade was not a very profitable one, for there was a great plenty of cattle, and the patriotism of the Texans forbade any organized attempt to "hold up" their new government by a combination for high prices. But with the capture of New Orleans by the Federal forces in April, 1862, Texas became shut off from practicable trade intercourse with the remainder of the country and continued in that situation until the close of the war. Yet her cattlemen did not give up immediately, for during the summer and autumn of that year they drove some large herds of cattle to points on the Mississippi, where, by swimming the animals, they got them across with more or less loss and hurried them eastward to the southern armies. But this proved too hazardous to amount to much financially, and furthermore the Confederacy by that time was paying its bills in its paper promises to pay, which, even in that early period of the war, already had become of very doubtful value; and so these drives soon were given up.

During the subsequent years of the war the comparatively small military forces that the Confederacy had in the Southwest had plenty of beef to eat, for they could get it by going hunting for it, as they would for buffalos, or through patriotic contractors. The latter method was the one usually followed, and upon the face of the returns the contractors were making fabulous profits, but as payments were in Confederate paper currency most of them finally went bankrupt with bales of this "money" in their possession.

After New Orleans had passed from Confederate control, some of the stockmen in the southwestern cattle-raising sections of Texas turned to Mexico to find a market for their stock, and during the ensuing year or two a considerable number of cattle were driven into that country and sold at prices that could be tolerated only because nothing better could be had anywhere else within the sellers' reach. The latter could not drive North and sell within the Federal lines without impossible certificates of "loyalty" unheard of among Texas men in that period of passion, and would not have done so even if the certificates were unnecessary. But this movement to Mexico ceased in 1864, when the Confederacy had begun to betray unmistakable indications of its early dissolution.

The war did not cause all of the troubles that came upon the Texas cattlemen while the great tragedy was being enacted. It was not responsible for the drouth that followed drouth over nearly the whole of the cattle-raising region of that State during almost the entire term of the conflict; the effects being especially severe in the southwestern parts. It was one of the periods in which vegetation withers and dies, when "the sky turns to brass; * * * when rivers shrink, streams fail, springs perish." Thousands of cattle died from actual thirst and thousands of others from sickness caused by stagnant and putrid water that the famished creatures had sucked up from slimy pools that were all that was left of former running streams. These pools were made more foul by the decaying carcases of wild creatures of the prairie, as well as of those of cattle, that in their weakness had fallen and perished on the brinks.

It was estimated that in some districts the death-ratio was as high as seventy-five per cent. The money loss was not nearly so great as such mortality would have entailed immediately before or immediately after the war, for from the time that the main outlet to the country east of the Mississippi—by way of New Orleans—had been shut off, prices of cattle in real money had sunk lower and lower; reversing the usual effect of war upon all food-stuffs, and directly to the contrary of what had happened in the northern States and also in the States of the Confederacy that were to the eastward of the great river. In some sections of Texas, herds were offered for sale at prices ranging from $1.00 to $2.00 per head, but there were few who cared to buy, or who were able to buy even at such nominal figures. Conditions in many parts of the Texas country were such that the more cattle a man owned the greater and more oppressive was his poverty. Finally things came to such a pass that many ranchmen entirely neglected their stock and let the herds go adrift as not worth further trouble and expense. A very large proportion of the men able to bear arms had gone into the Confederate Army, leaving their property and their business to the care of their wives and children; and where this property was in cattle there unavoidably was deterioration and scattering of much of the stock.



Main Plaza, San Antonio in 1859.
(From Barber's "Western States and Territories.")

In consequence of these conditions the unsettled parts of Texas contained at the close of the war thousands—some say hundreds of thousands—of half-wild range cattle that had been shifting for themselves since they had wandered from their owners or had been abandoned by them. Through attentions they had received from Indians and wolves, they had become alert, suspicious, and more nimble of hoof than ever before, and some of them had gone far enough to fall in with remnants of the earlier "wild cattle" that were lingering in remote places, and had found no trouble in making companions and friends of these.

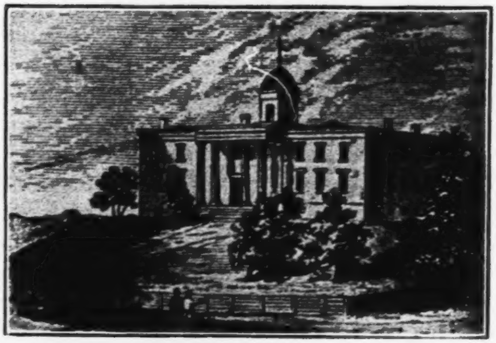
Texas was almost without railroads before the Civil War, a few miles of poorly-built track representing all that had been done toward the development of a railway system. The pioneer railway enterprise in the State was a rather ambitious project for those days, for it was planned to traverse the east-central part of the State from Galveston by way of Houston to the far-away Red River. Its projectors received a charter from the State on March 11, 1848, as the Galveston, Houston, & Red River Railroad Company, upon which a land-grant covering sixteen sections, or 10,240 acres, was to be bestowed for every mile of road constructed and equipped. Active work was begun in 1853, and the line was completed and opened for business between Galveston and Houston in 1854. At that time both these towns were mere villages; Houston a few years earlier having been, according to our old missionary friend, the Abbé Domenech, "a small and muddy village, consisting of several log-huts, and very much infested with red ants and Methodists." For some time after completion of the road, which is now incorporated into the Houston & Texas Central system, a local train or two daily each way managed to take care of all the business and also represented the outfit's entire equipment.

On September 1, 1856, the Houston Tap & Brazoria Railroad Company was chartered, with a land-grant like that of the earlier road thrown in. But the panic of 1857 intervened and delayed progress. However, the road, which is now a branch of the International & Great Northern system, was completed to Columbia in 1860.

The financial depression of 1857 that swamped almost every kind of important enterprise in all of the country east of the Mississippi, also was seriously felt in Texas, and there as elsewhere railroad construction was about the first to yield to its effects. Several years before, General Sidney Sherman, one of the heroes of San Jacinto, had projected a railroad from Harrisburgh, a village near Houston, to Austin, and had interested some New England men in the undertaking. In the same period the people of Indianola set out to build a railroad to connect them with San Antonio; and there were several other, but less definite, railroad propositions under discussion in the State at that time.

After the worst of the panic effects had passed, the construction of the Texas & New Orleans Railroad between Houston and New Orleans was begun, the road being completed in 1861 at the outbreak of the Civil War. This road, it may be mentioned here, was dismantled in 1865 and afterward reconstructed, and is now a part of the Southern Pacific trans-continental route.

Notwithstanding that the State of Texas was very liberal with land-grants and in other provisions of its charters to its early railways, there had actually been constructed within its boundaries up to the outbreak of the Civil War, only a few miles of railroad, which, with the exception of the Texas & New Orleans, consisted of the tracks of short local lines. It is hardly necessary to add that the influence of these pioneer railroads upon the live-stock business of the State was insignificant.



The Capitol at Austin in 1859.
(From an old print.)

The ordinance of secession was passed by the Texas convention on February 1, 1861, and the oncoming of the war between the States paralyzed in Texas, as it did in every other part of the South all such enterprises as developmental railroad building. This remained suspended until after peace had returned to the Nation, when it was revived and prosecuted with results that since have made Texas one of the great railroad States.

When Americans began settling in Texas about the close of the first quarter of the nineteenth century the Indians had been but little disturbed in their possession of the country.

Nearly all of the eastern half of the State had long been occupied by tribes of the Caddoan linguistic stock, which cherished traditions that their people once had been a great Indian nation that dominated over the entire Southwest. However this may have been, they were not so warlike in disposition in the period in which the Spanish missions were founded in the Texas country as were the other Texas tribes, and some of them readily passed under the influences of the Franciscan fathers.

These mission establishments, like those of New Mexico and of California, were of the *hacienda* type—a kind of fortified enclosure, a chapel or church being the principal structure within the walls. Both inside and outside of those in Texas there were hovels for the Indian converts. These missionaries really were the pioneer stockmen of Texas, for their establishments were provided with some live stock from the beginning, but mostly sheep. The Indian converts did all the work, including taking care of the stock. Thrall's "History of Texas" says:

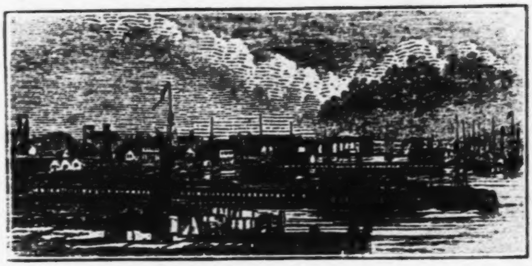
"The fathers, with a few domestics and soldiers, took possession; and by persuasion or force, the Indians were induced to congregate in the neighborhood. They were employed in taking care of stock and cultivating the ground to supply food. In return for the comparatively light labor the Indians received religious instruction, food, and clothing. These domesticated Indians were called '*Indios reducidos*.' "

In the southwestern coast region beyond the mouth of the Colorado River and upon the coast islands there dwelt the Karankawans, who very early acquired among the Spaniards the reputation of being cannibals, and therefore were held in great abhorrence. While they were small in number they were more warlike than the Caddo group, but a few years after the American occupation these people were reduced, chiefly by war with their Indian neighbors to the westward, to a few hundreds. These had been driven from the mainland to the islands, where they subsisted mainly upon fish and oysters.

The region of west-southwest Texas and of the southeastern part of New Mexico was occupied by the Lipans, a people closely related to the Apaches, both being of the Athabascan linguistic stock, and having a common fondness for the war-path.

The Comanches roamed over a great area that embraced central and northwestern Texas, a part of northeasten New Mexico, and much of the present Oklahoma. They were of the Shoshonean linguistic family, and the farthest southeast of any tribe of that stock. Much superior in energy and craft to any of those that have been mentioned above, the Comanches made themselves widely noted among the white people, as well as among the red, for their skilful horsemanship; and were hated for their murderous and plundering raids, by their neighbors of both colors.

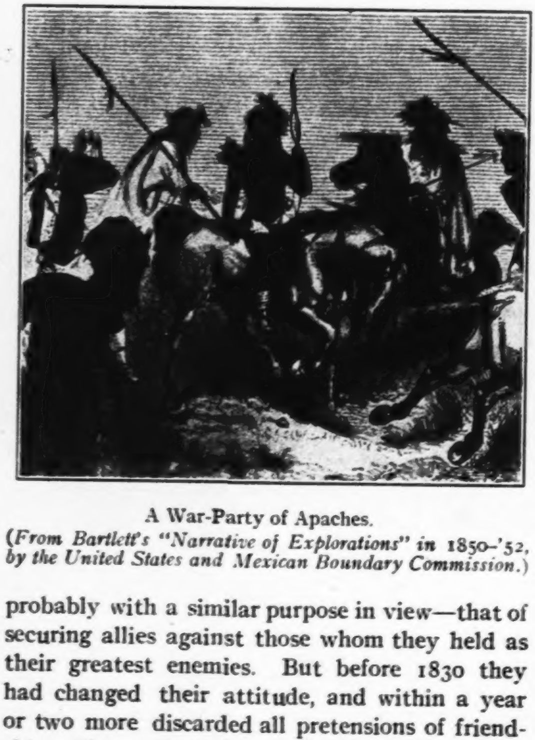
The Caddoan Indians as a group gave the American settlers but little trouble, and frequently their braves served them as guides and scouts against marauding bands from tribes that were hostile; but they became much reduced in number by pestilence, and the remnant that remains of them now is upon a reservation in the Indian Territory.



View of Galveston in 1859.
(*From Barber's "Western States and Territories."*)

The Lipans professed friendship for the Americans from the start, but this was more for the purpose of gaining powerful allies against their hated enemies, the Comanches, than for any inherent feeling of regard,—a mere stroke of Indian international politics. As individuals, they were ever ready to kill a lone white man for the sake of what he had with him, when there were no Comanches around; and would steal horses and drive off a small bunch of cattle whenever they could do so with a fair chance of escaping detection. But as allies they often were of service as scouts and trailers in white movements against the Comanches in the earlier period of Texan history. Many years ago they removed farther west, and finally went into Mexico.

The Comanches were bitterly hostile to the Spanish-Mexicans, and looked upon them as the first enemies to be killed; the animosity having dated from the beginning of Spanish occupation of the Texas country, and having later been worked up to such a pitch that a Comanche never would let pass an opportunity to kill a Mexican. In the first few years of the American settlements, the Comanches, like the Lipans, professed friendship for the newcomers into the country, but probably with a similar purpose in view—that of securing allies against those whom they held as their greatest enemies. But before 1830 they had changed their attitude, and within a year or two more discarded all pretensions of friendship. From that time the American settlers were no more secure from Comanche raids than were their Mexican neighbors.



A War-Party of Apaches.
(From Bartlett's "Narrative of Explorations" in 1850-'52, by the United States and Mexican Boundary Commission.)

In no other part of the United States was warfare with the Indians continuously waged so long by our pioneer people as they advanced to take and hold possession of the country, as in Texas. For more than fifty years, with scarcely one of peace, the frontier line of Texan settlements, wherever it was during that period, was the scene of the sickening tragedies that characterized Indian resistance to the progress of the conquering race from the time that the latter set foot on the banks of the James River in Virginia. In several of the Atlantic seaboard States the interval between the first and the last battle with Indians within their borders was greater, but they also had long intervening periods of peace. In Texas, for more than the half of a century, the men of the frontier had to be in instant readiness to repel attacks by the most crafty, cruel, and relentless foes.

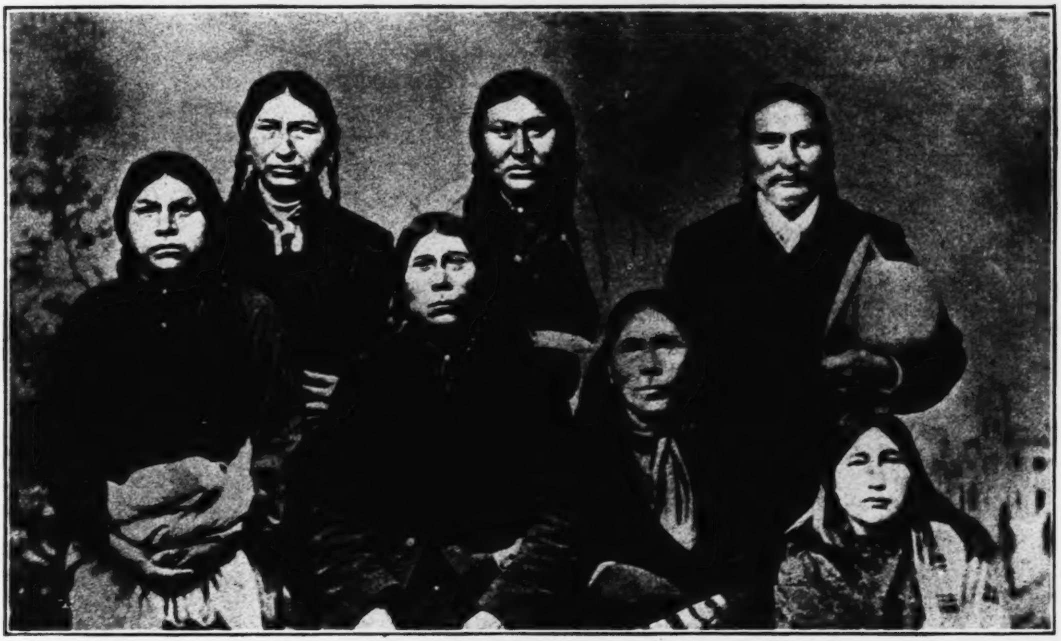
To enter here upon any circumstantial account of the long-drawn-out series of Indian depredations and massacres in Texas would be to go beyond the scope of this work; and furthermore this volume would not contain the story. Every form of savagery that could be conceived by the Indian mind was put into effect again and again, year after year. The first of the Americans to receive an unprovoked attack were among those of the Austin colony. In the summer of 1823 a party of Karankawans, or "Cronks," as the settlers called them, ambushed three men, two of whom were killed, while the third was badly wounded. Other Cronk outrages followed in that year, and in 1824 these Indians killed several immigrants who were on their way to the settlements on the Colorado River; whereupon an organization of settlers attacked them and taught them a lesson so severe that they were glad to make a treaty of peace and were careful to keep it thereafter.

Through the remainder of that decade, and once in a while in later times, there were various depredations and occasional murders of settlers by Indians of the eastern and the coast regions of the country, but their prompt and severe punishment for every offense finally made most of these people realize that if they cared to live much longer they would have to do so in peace with the Americans.

The Spanish people had found the Comanche to be an Indian proposition quite different from the natives of Mexico and of California, the Pueblos of New Mexico, and the Caddos of Texas. To them he had proved untamable and about as indifferent or insensible to their early efforts to evangelize him as a buffalo bull could have been. Our own people found him to be about as dashing and persistent an Indian foe as any that their race ever had encountered on this continent. The first murder of a Texan settler by Comanches occurred in 1827, but this was due to what they considered an act of treachery on the part of their victim. However, and as already remarked, they were at that time changing the attitude of professed friendship for the Americans that they formerly had assumed, and were beginning to look upon the energetic new people as far more dangerous to themselves and to their hold upon their country than ever they had regarded the Spaniards as capable of being. They saw that the horses of the settlers would be very useful to them, and that the cattle would afford them a ready and unfailing means of subsistence while on raids of extermination that they had even then begun to contemplate; and also that such captured cattle as were not used in their campaigns would make many a gluttonous feast for all hands in their villages. From 1830 onward there was unrelenting strife between the Comanches and the Texans for so long a time that fathers, sons, and grandsons successively engaged in it. Comanche raids followed raids year by year, and most of these were accompanied by the usual awful horrors of Indian warfare.

While the struggle with Mexico for the independence of Texas was going on, the Texans had also to protect as best they could their frontier settlements from attacks by these tireless red enemies who were inspired by even greater zeal than before. The Comanches, having seen the Americans and Mexicans fighting each other with desperate fury, called to their assistance many Kiowas from the Kansas region, with the hope that now, as the whites were killing one another, those that should survive, Mexicans as well as Americans, could be either exterminated or driven out of the country never to return.

After Texan independence, the resources of the young republic were heavily taxed to defend its frontier, which was being rapidly advanced farther and farther into the Indian country by the emigration that was flowing in from the States. The Texan territory was so large, and



A Group of Civilized Kiowa and Comanche Indians.
(*From "The Cattle Industry of Texas."*)
The Indian standing on the right is the noted "Lone Wolf."

the Indians were such perfect masters of plainscraft, that the task was always difficult and often failed of its purpose; as was exemplified by the tragedy of Linnville in 1840.

For a short period during the war between the United States and Mexico, most of the Comanches and some of their allies were awed into comparative quiet by the passage of bodies of American troops across the plains to New Mexico, with their long trains of artillery and wagons on their way to fight the Mexicans. This was a visual demonstration of a power of which they previously had had only a vague knowledge and which they had been inclined to hold in contempt. But soon after the war the former conditions were renewed by the dashing Comanches and by several of the smaller tribes, and were continued by them for years afterward. The buffalos were being decimated and otherwise disturbed by many of the incoming whites, and therefore most of these Indians had resolved to live upon the white men's cattle and to kill and scalp while they were doing so. In the early '50's there was a short period of peaceful seasons, but later in that decade the Comanches, together with others, broke out in hordes, and then there was fire and blood again all along the northwestern frontier. To bring to a close these outlines of Indian warfare in Texas, it remains to be said that the Comanches, with allies from several other tribes, continued it throughout the four years of our Civil War; and, so far as the changed conditions had left it possible for them to do so, they, with parties from tribes placed on reservations in the western part of the Indian Territory soon after the war, continued making marauding raids for about fifteen years longer.

During the twelve months that ended with October 1, 1878, there were, according to the official report of the United States Military Department of Texas, forty-six white men killed and six wounded by Indians in central and western Texas, most of whom were stockmen—cowboys, or stock-owners.

From the time of the Texan Republic until the close of this long struggle, the cattlemen of Texas bore the brunt of that hideous warfare. After range-herding proper had become a distinct business, the situation of the cattlemen made videttes of them along the frontier of civilization in their country. Often they were among the greatest sufferers, and always were in the forefront of their friends and neighbors as these went forth to battle with foes who had no equals in craftiness, persistence, and cruelty among the savage people of the earth in modern times. It has been said that the Comanches and the Apaches had ways of torturing that only themselves and the devil knew and that no pen could describe. Many a poor fellow of the range who had the awful misfortune to fall into their hands alive, perished under their horrible atrocities. In frequent instances of Indian depredations in Texas, and especially so in the later years, the only victims of Indian raids were men of the stock-ranges, herd-owners, ocwboys, and shepherds together; and the graves of these are many, between the upper reaches of the Red River and the sandy bed of the Rio Grande.

William D. Reynolds.

William D. Reynolds is one of the widely known cattlemen of the Southwest. As a native of the South, a citizen of Texas since his infancy, his earliest recollections are connected with the Lone Star State, and the principal efforts of his life have been directed in the development of one of the most promising regions of the globe. Starting in the cattle business on the open range, Mr. Reynolds has been a witness of mighty events in the progress of enlightened methods and the subjugation of the wilderness to the uses of man. He has been an active participant in the evolution in America which will forever distinguish the last half of the nineteenth century as one of the most remarkable periods in the world's history. It is difficult or impossible in these times of affluence and peace to appreciate the conditions in West Texas for twenty years following 1860, when Mr. Reynolds first saw the plains. The most primitive conditions prevailed. The buffalo and the deer roamed over the vast stretches which were afterward occupied by great herds of cattle; mustang horses grazed by thousands on the plains and the grassy valleys, and the creek bottoms abounded in wild turkeys and small game. The early settlers of Texas were poor in this world's goods—but they were rich in brotherly sentiment toward one another, and the most kind-hearted and hospitable people any country has ever known. The dug-out or the log cabin may give shelter to peace and happiness, whose presence is not always felt in the elegantly appointed mansion. The early settlers of West Texas were essentially cowmen. No other occupation was thought possible, and upon these immense plains, with no advantages of education except those presented by contact with Nature and by the intense struggle for existence, were produced many of the most successful live-stock men.

In the early days traveled roads were few and many miles apart, and settlers in their long journeys were guided by prominent land-marks or by the sun and the stars. Wagons were scarce, and markets were distant and difficult to reach. Travel was principally on horseback. The average cowman was a good rider and a good shot with the rifle, and was inured to long exertion, and acquainted with the habits and wily arts of the redskin, whose deadly enmity was a constant menace to the families and settlers for hundreds of miles along the Texas frontier. Indeed, Mr. Reynolds recalls the difficulty he himself experienced, after the Indian had finally been driven off the range, in avoiding the habit of constant watchfulness that became second nature to the frontiersman. This habit consisted in turning the head quickly from side to side while traveling in order to detect the presence of the foe. Every rock, bush, and gulley was possible shelter for a lurking enemy, and constant vigilance was the price of safety. The only settlements in those days were on the banks of streams, as artificial earth "tanks," wind-mills, and artesian wells were unknown luxuries upon the plains. The settlers ground their grain for flour in hand-mills, and prices of commodities were so high that many families lived off the land and seldom visited the store. Yet the early settlers of Texas were happy, and set about cheerfully and with brave hearts clearing away the forest where necessary, plowing the ground, fencing the prairies, and preparing for the inevitable tide of immigration that set in from less favored States of the Union.

The region with which the fortunes of Mr. Reynolds were united was bordered on the west by the vast area known as the Staked Plains and the Trans-Pecos country, a portion of the State almost wholly unknown. In remote parts of the Trans-Pecos country the Government for years maintained military posts along the famous Butterfield stage route, which followed a chain of forts far to the east of the Staked Plains, crossed the Pecos River at the noted pontoon bridge, now known as Horse Head Crossing, and for a distance of nearly 200 miles meandered through deep cañons and through rugged mountains, terminating at El Paso. But only a small part of the Staked Plains, even up to 1875, had been trodden by the foot of domestic animal or seen by the eye of white man. It was a great area of country, so little known that even the dauntless rangers, the fearless plainsman, or the well-supplied Government troops had dared to traverse it only by following such well-defined routes as the Pecos River or the Butterfield stage road. In this very region, at an altitude of five thousand feet, is now located one of the principal ranches of the Reynolds Brothers.

The veteran cowman in his reminiscent moods can tell a story that causes the heart to quicken its beat and carries the listener vividly back to the stirring scenes of pioneer days. The eye of the old cowman again sees the great black mass of buffaloes that once rolled and thundered along where yonder field of grain now waves; he lives again through the ceaseless vigilance he once kept around the bedded herd where the spires and domes of yonder town reflects against the horizon; or he feels once more the ominous uncertainty that precedes the approaching storm, that thundering, flashing monster that rides on the bosom of the night; he sees the lightning dancing on a thousand horns, and nerves himself for the explosion from the dream-like silence that pervades the herd, while, like a mother cooing her babe to sleep, he sings the song of the range night-watch to the object of his suspicions: then comes the wild flash, the deafening peal, and amidst a maelstrom of clattering hoofs and wild confusion, he rushes along in the blackness of night with the mighty stampede.

Can you imagine the transformation to be witnessed to-day?—where all was loneliness, uncertainty, and vastness of the prairie now reign contentment and bountifully provided homes.

The Reynolds family was one of the first families to locate permanently in Palo Pinto County. B. W. Reynolds, the father, was of Scotch descent, and inherited the sturdy characteristics that are recognized the world over as the foundation of the Scottish character. He came to Texas from Alabama, in 1847, and the outbreak of the Civil War found him with his family, consisting of a wife and seven children, at the border of civilization contesting with the Indian for a foot-hold. William D. was then a boy of fourteen years, but he was accustomed to outdoor life, and when the Government troops were withdrawn from the frontier to take part in the war, he was enrolled with the Rangers, and during the war period he gained a practical experience in the field as an Indian fighter. The company of which he was a member consisted of forty men and was divided into four detachments of ten men each, one of the detachments being constantly in the field. The men not on duty looked after affairs at home, but were subject to call at any time. The Rangers wore no uniforms, as uniforms were luxuries not to be thought of. Each man provided his own horse and arms, and the most useful man was the one who had, as in the case of Mr. Reynolds, the qualities of the scout—who could travel over a strange country and not become lost; whose instinct never failed to lead him in times of necessity to a water-hole; and who, securing a bead on an Indian, seldom failed to bring the enemy to the ground. The scouting parties patrolled the border constantly, for they were guarding defenseless women and children; and although the service led to many sanguinary encounters with Comanches, Kiowas, or the treacherous Apaches, Mr. Reynolds passed through the ordeal without bodily injury. The double-barrel shotgun was a favorite weapon with the early rangers of West Texas, as it was a deadly instrument at close quarters. In one of the fights a soldier's blue overcoat which had been worn by one of the Indians was found upon the field. This coat had been pierced by twenty-nine buckshot in the course of the charge, and its former wearer was stretched out dead upon the prairie. The men who defended the border were as brave and cool-headed in times of the danger as any ever known in the annals of frontier life of America, otherwise the tide of civilization would have been swept far back to the established communities of the State. Once having gained a vantage-ground, these tireless heralds of a brighter day never relinquished their grasp except to advance another stride into the realm that had from time immemorial been claimed by the red-man. The student of frontier life in West Texas is not surprised that men who gained recognized standing under these trying circumstances came to the front in the great movement of Texas cattle northward, which took place after the close of the Civil War. Many of the leading cattlemen discovered their ability while in conflict with the Indian.

In September, 1867, Mr. Reynolds went upon the trail. He engaged with Messrs. Loving & Goodnight at a salary of $50.00 a month, furnishing his own horse and saddle, as was customary in the earlier years of the trail. Mr. Reynolds was a cattle-owner himself, having acquired a modest holding of forty-two head of cattle. These cattle were driven north with the Loving & Goodnight herd and disposed of to J. W. Iliff at a fair price, so that early the following year the young cowman could claim $700 in cash and a mule worth $125 as the result of his first venture on the trail. As described elsewhere in this volume, Oliver Loving died on this trip from wounds received in conflict with the Indians. Mr. Reynolds was a member of the party that conducted the remains homeward over the trail to Weatherford. The body was placed in a metallic casket and conveyed in a wagon on the long journey to its final resting-place.

In the spring of 1868, Mr. Reynolds and his brother, George, began business for themselves and the partnership has existed without interruption since that time. Although each of the brothers owns and operates independent ranches, the operations of the Reynolds Brothers in live stock for a third of a century past have been equalled in magnitude by only a few firms or individuals of the Southwest. The brothers each brought to the work certain qualities which led to success in almost everything they have undertaken, the field extending into banking, merchandise, real estate, cotton seed oil mills, and other enterprises connected with the growth of a newly settled region. From the start the operations of Mr. Reynolds have been based upon sound business principles, and the element of speculation has had practically nothing to do with the outcome. The Reynolds Land and Cattle Company is known as one of the best-managed corporations of Texas, and the financial standing of the brothers, as early as 1868, was such that they purchased cattle on credit for their first trail-herd to Colorado. This credit has never since been impaired.

The Texas headquarters of the Reynoldses were in Shackelford County on the Clear Fork of the Brazos River; but they early perceived the importance of a ranch further north, and in 1868 they established a ranch in the valley of the Arkansas, which was maintained for eight years. The headquarters of this ranch were on the north side of the Arkansas River, about a mile from the present town of La Junta. Thousands of Texas Long-horns were brought in from the south and distributed from this ranch. Mr. Reynolds went over the trail with a herd as far west as Salt Lake, Utah, and his trips led him north into Montana and North Dakota. He usually spent the winters in Texas, and as time passed and the Arkansas Valley ranch was encroached upon by new-comers, it was decided to change the base of operations again to Texas.

The power of the Indians had been largely broken, and a severe drouth in Southern Colorado caused short grass with its attendant inconveniences. The herd, which numbered 4,500 head of improved stock, was driven south eighty miles to winter and thence to the Canadian River. Early in the spring of 1878, the entire herd was sold to Charles Goodnight, and thus became the foundation of the celebrated "J. A." herd.

A goodly number of well-improved cattle had been retained by the Reynolds Brothers, and the ranch in Shackelford County now became a principal theater of operations, and has since been developed until it is one of the finest ranches in Texas.

Mr. Reynolds has, from his first experience as a cattle-owner, been a warm advocate of improving the herd and thus producing good form and quality. He early introduced bulls from the T. L. Miller farm at Beecher, Ills., and has been for thirty years a large patron of pedigreed stock. Operations have increased from year to year, until as many as 50,000 cattle are grazed at one time upon the Reynolds ranches, and the "long X" brand was placed upon 17,000 calves in 1900. For fourteen years a ranch was maintained in North Dakota, but in 1902 the headquarters of the northern herd were changed to Milk River, Montana. Cattle of one, two, and three years old are sent to the Montana ranch to be finished for the market. At one time 20,000 sheep were handled on the Texas range, but the herd was gradually sold off. Under favorable grass conditions, Mr. Reynolds regards sheep as a desirable adjunct to cattle. He is an advocate of Hereford cattle as the best range stock, looking always to a moderate mixture of Short-horn blood in the herd to give it bone and body. Some of the handsomest specimens of Herefords in Texas are upon ranches controlled by the Reynoldses.

Mr. Reynolds has all his life been a practical man. Entertaining the broadest views as to the rights and opinions of others, he is a firm believer in the gospel of work, and he regards a willingness to labor as one of the most encouraging features in the character of any man. "Work," said he, "has been the salvation of many a man, and the greatest danger that can menace any country is the disinclination of young people to labor. There is always hope for the industrious man, and the most important part of education is to teach the young the dignity and the lasting utility of applying their energies in useful directions. Work is the greatest blessing we can imagine—far greater than mere book education, when the latter is applied to one who has no vital interest and cannot absorb it.

"Texas," said he, "is destined to be the leading producing State of the Union, and the prophecy of Judge John H. Reagan that the State will some day have a population of 25,000,000 people, is no exaggeration. Consider the immense area, the diversified climates of the State, the variety and fertility of the soils, the live-stock interests, the vegetables that can be raised, the sugar, rice, cotton, corn, and wheat and forage plants, and the great area yet available for cultivation. People of Texas who have lived in the State all their lives do not appreciate its resources. The possibilities are simply beyond our imagination. Manufacturing has not yet started in the State and Texas is just as capable of maintaining large factories and supplying the raw material as any State of the Union.

"As to West Texas," said he, "the changes of the last thirty years surpass belief. We have many of the advantages of the North and the Northwest. It is always cool in the shade; in West Texas the air is pure and dry, and there is no malaria. West Texas is going to be a great cotton country. Cotton is not a wet-weather plant, and it can be grown even in the dry years.

"When I first went upon the range we never thought of land being worth anything. Afterwards the great pastures were fenced, and we were assured that West Texas and the Panhandle would always be a range country, as Providence had so ordained it. Along came the farmer, and we found we had a farming country. Now it is known that a man with a family can live well and make money on four sections of land. The result is that land is selling at $5.00 an acre and upwards, and values are advancing. Ultimately all of that part of the State as far west as the Pecos River will be divided up into small farms and ranches, and hundreds of thousands of people will occupy the region formerly roamed over by the buffalo and the Indian."

One of the sorrows of the life of Mr. Reynolds was the violent death of his brother, Glenn, Sheriff of Gila County, Arizona, November 2, 1890. Glenn Reynolds was for many years prominently identified with the Texas Rangers in ridding the State of the most desperate class of cattle-rustlers any State has known. These reckless characters threatened extermination to the stock business upon the border ranges, and as the cattle thieves were armed with the most improved weapons that money could buy and were thoroughly acquainted with their use, the rustlers were much more dangerous enemies than were the Indians. Glenn Reynolds was one of the leaders who cleared Texas of these desperadoes. He first showed the mettle that was in him, when a lad, defending his home on the Clear Fork of the Brazos from an attack of Indians. This was in 1865. Later he became recognized throughout West Texas as a dead-shot and one of the most fearless men ever known in the State. In 1885 he moved to Arizona, and it was while conducting Apache Kid and eight of his followers to the penitentiary that Glenn Reynolds lost his life. The Indians were chained together in threes, and the Sheriff was assisted by only one deputy. On account of the difficult nature of the road, the Sheriff and his prisoners descended from the vehicle in which they were riding. At a preconcerted signal the prisoners attacked the Sheriff and deputy and instantly killed them. The circumstances of the tragedy were never fully disclosed, but it is belived that during one fatal moment the ever-watchful Glenn Reynolds was off his guard. Apache Kid and his followers escaped across the line into the mountains of Mexico. Troops of the United States and Mexican Governments made every effort to avenge the deed, and the Reynolds Brothers offered a reward of $5,000 for the capture of Apache Kid. Several months later the watch of Glenn Reynolds was found on the body of an Apache who was killed in Mexico. The watch was sent to Washington, and Secretary James G. Blaine, of the Department of State, restored it to the Reynolds family at Albany, Texas. A revolver belonging to Sheriff Reynolds was also recovered. It is believed that the entire party of Apaches met their merited punishment in conflict with Federal troops of Mexico, but the fate of Apache Kid has never been officially reported.

In the management of his extensive ranch interests, Mr. Reynolds has adhered to the principle of advancing capable employees, and many of the men upon the Reynolds ranches have spent the most of their active career in the service of of one employer. A faithful employee thus receives merited recognition, and a feeling as of one large family is a pleasing characteristic of these ranches. Mr. Reynolds is the gentlest of masters, and is so quiet and unostentatious in manner that he is in marked contrast to many men in charge of much smaller affairs. A simple "yes" or "no" from him has more meaning in an important business transaction than a half-hour's talk from many men of less impressive character.

Mr. Reynolds is a man of handsome form and countenance, and has an air of self-possession and a personal magnetism that have assisted him greatly in influencing others throughout his long business career. He is one who possesses within himself the resources capable of clearing a way through any obstacle, or removing the obstacle itself. He is recognized as one of the leading men of Texas, not on account of large wealth, but on account of natural ability, sound judgment, and a financial acumen possessed by few men, even of the great State of Texas. He is a member of the Presbyterian Church, a Mason of high standing, and belongs to the class of men who give strength and dignity to a state and durability to a nation.

[Mr. Reynolds was married January 1, 1879, to Miss Susie Matthews, daughter of J. B. Matthews, of Albany, Texas, where the family made its home until 1903, when Fort Worth was selected as the place of residence.

The following children have been the result of the marriage: George Eton, Ella M., Willie D., Joseph, Annie Merle, Wendell Watkins, John, and Nathan B.

Mr. Reynolds began in the cattle business when there was no market for cattle, and the only outlet of the Texas live-stock man was to trade his cattle in East Texas for horses or barter them in small lots for the necessities of life. As an early trailman, Mr. Reynolds became acquainted with the possibilities and the natural resources of the country east of the Rocky Mountains—the greatest natural cattle country to be found on the globe. This information has been to him of inestimable value in the many transactions he has been required to pass upon.

The valley of the Arkansas, where once he ranched, is now a smiling garden, threaded with railroads and teeming with a vigorous population. The slow-moving trail-herd has given way to the special-scheduled live-stock train, and the Texas Long-horn is superseded by some of the most beautiful types of animals to be seen in the world. The hand of destiny points to still greater achievements in years to come, and it is the ambition of Mr. Reynolds that his sons may perform their share in the mighty work yet to be accomplished.

Origin and Development of Range Sheep-Herding.

Antiquity of the Business in New Mexico.—The Land of the Shepherd.—Old Peonage System.—Adoption of Range Sheep-Herding by Americans.—Coming of the Spanish Pioneers in New Mexico.—Coronado's Sheep.—Succeeding Explorations.—First Spanish Settlements in New Mexico.—Introduction of Sheep and Other Live Stock.—Friendliness of the Indians.—The Inquisition and Its Oppression.—Uprising of the Indians and Expulsion of the Spaniards.—Cruelties of the Revolt.—Pueblo Shepherds, Spinners, and Weavers.—Re-conquest of New Mexico by the Spaniards.—Explorer Pike in New Mexico.—Values of Live-Stock Animals There in His Time.—Pioneer Americans in New Mexico.—Early American Stock-Raisers in That Country.—Occupation of Southern Colorado by Mexican Sheepmen.—Acquisition of Spanish-Mexican Population by the United States in the War With Mexico.—Old Texan Boundaries.—Northward Extension of the Sheep-Herding Industry.—Mormons as Sheep-Raisers.—Early Sheep-Raising on the Pacific Coast and in the Plateau Region in the West.—Navajo Indians as Sheepmen.—The Navajo Country.

The history of herding sheep on the ranges in the western part of our country carries us back much further than that of the range-cattle industry, as the occupation is one that has been followed continuously in New Mexico for about 300 years. The sheep truly is an "old-timer" in the New Mexico country, for the pioneers of its race in that region came from Old Mexico more than 360 years ago—now about one year of time for each day in the year.

New Mexico, above all of the other territorial divisions of our Union, seems intended by Nature to be a shepherd's land. Its genial, dry climate, haze-wrapped mountains, broad mesas, and grass-grown valleys, combined with the intangible things that artists call "atmosphere," and "local color," which in New Mexico are unlike those of any other division of our country, exquisitely harmonize that "land of to-morrow" with ideals that we have partly inherited and partly acquired of the quiet, dreamy, tinkling life of the shepherd.

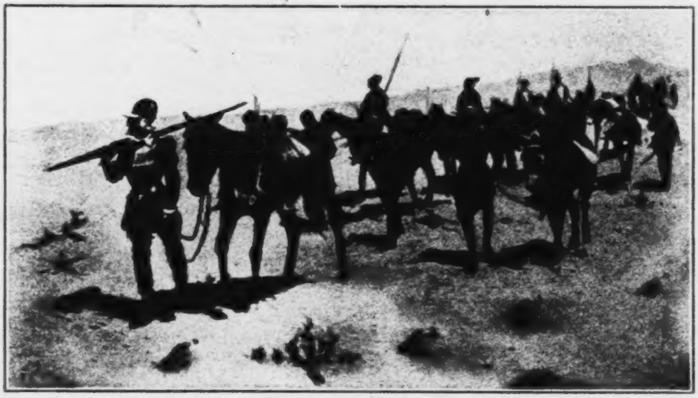
That Territory is the only sub-division of the United States in which the "hoariness of antiquity" is present; in which old ways and old scenes have not been obliterated by the "Juggernaut" that we know by the name "Progress." While New Mexico is fast advancing, yet in its ancient Mexican towns we may have glimpses of medieval Spain, and in its pueblo country the visitor sees much to remind him of what he may have observed or may otherwise have learned of the aspects of human life in Asiatic lands. Wherever he goes, among the Indians, as well as among the whites, he will see flocks of sheep tended by picturesque shepherds, drowsily wearing the day away.

The Mexican shepherd takes life as it comes to him, and it comes freed from the fretting and the anxiety of the busy world far beyond his horizon. His shelter for the night may be a tent or a temporary hut, and his principal food is mutton drawn from his flock. A modest supply of corn meal, a sack of onions, a store of peppers, and some salt, round out and season his simple fare; and he sleeps on a pallet of sheep-pelts. So he lives in primitive simplicity, with constant friends and companions in his kindly shepherd dogs, and a meek and unostentatious burro to bear the burden of his camp outfit when it has to be moved from a grazed-out locality to one of fresher pastures. Although he may have as many as 3,000 sheep under his care, he is content with meager wages. It was said of the typical former-time Mexican shepherd of New Mexico that he would sigh if he had lost a friend and groan when his wife or child died; but if death took his favorite dog his grief was manifested in an overwhelming anguish that refused to be consoled.

Early in the period of Spanish domination in New Mexico the peonage system became established there, and under it many of the Castilians became lordlings of the soil. A pueblo Indian, or a person of mixed Spanish and Indian blood, or of a negro mixture, or even one of the Spanish peasant class, by offenses against the laws, by indebtedness, and often by voluntary bargaining, would become bound to serve a master under conditions that were next to those of actual slavery. Before expiration of the stipulated period of service, pretexts would be found under which to continue the servitude of most of these spirit-broken creatures, and not infrequently, in the stress of real or imaginary needs, an extension of the peonage would voluntarily be made for a small sum of money paid down in hand; often a mere trifle in comparison with the length of service to which thereby the peon became bound under laws and customs as inflexible, with respect to him, as the proverbial ones of the Medes and Persians. So this went on for years, the medieval system transplanted in the New World, which was not entirely eradicated in New Mexico until after that country became United States territory. Many of these peons were made shepherds, and as the Castilian masters acquired control of larger and larger areas of land by "grants" or otherwise, they became veritable "shepherd kings." Their sheep were deteriorated Spanish stock, none of which represented much value in money, but they had so many, and the cost of producing and keeping them was so light, that a trifling sum from each would aggregate what was regarded in the old Spanish period as a large income. New Mexico sheep long continued to be very cheap, and as recently as thirty years ago any number of ewes could be had at a price around fifty cents per head.

While the development of the range-cattle business in Texas, and its extension thence northward over the immense plains region, essentially were due to the enterprise and ambition of Americans, the sheep-raising industry in their hands on the western ranges may fairly be said to have been an adoption from the Mexicans of New Mexico; and it also may be said that the methods of the industry, aside from the element of energy in management, and the improvement of the quality of the stock, have undergone no great changes except such as have been locally required by climatic conditions in the northerly parts of our range country. As we have set forth heretofore, sheep-raising in Texas had begun there in the era of Spanish-Mexican government, but down to the beginning of our Civil War, as it has been since, it was subordinate in importance in that State, cattle among live stock being in predominance.

The history of the sheep in New Mexico takes us, as we have said, far back into the past—to the entrance of the early Spanish pioneers into that part of our country. This happened long before domesticated animals had set foot upon the soil of any other section of the present domain of the United States, and but a few years after live-stock animals had first been disembarked on continental land of America. These Spanish pioneers came with golden dreams of the plunder they supposed to be awaiting them in the "great cities," into which dreary, desolate pueblo towns had been magnified by Spanish imagination. Some of these towns exist to-day about as they were then, and as they had been centuries before the coming of Columbus. Their people still live on in the old way, undisturbed, relics of the Stone Age. Their poverty has been their safety. They have no rich lands, no precious-mineral deposits to tempt the greed of white men. The march of progress that has swept away other Indian tribes has spared these lone-



Ideal Sketch of a Detachment of Coronado's Men on the Plains of New Mexico.
(*From Inman's "Old Santa Fé Trail."*)

ly pueblo communities in their adobe-terraced houses surrounded by desert lands.

Among the invaluable historical documents included in Hakluyt's "Voyages" is "A discourse of the famous Cosmographer John Baptista Ramusius, concerning the three voyages of Friar Marco de Nica [Marcos de Niza], Francis Vasquez de Coronado, and Ferdinando Alorchon next following: taken out of his third volume of Navigations and Voyages." From this "discourse," as it appears in Hakluyt's great work, we quote the following:

"The right honourable Don Antonio de Mendoca [Mendoza] being sent by Charles the Emperour [of Spain] to be viceroy of Mexico and Nueva Espanna [New Spain], and having understood that Don Ferdinando de Cortes had sent many ships along the coast of Nueva Espanna to discover countries, and to find out the Isles of the Malucos, began himselfe to desire to do the like, as viceroy of Nueva Espanna; and hereupon they fell out: for Cortes said that he was generall and discoverer of the South sea, and that it belonged to him to set forth those voyages. On the other side, the lord Don Antonio alledged that it belonged to him to make that discovery, as being viceroy of Nueva Espanna. So that they fell at great variance, and Cortes returned into Spaine to complaine unto the Emperour. Don Antonio in the meane season having obtained knowledge of the voiage, which Andrew Dorantez (who was one of the company of Pamphilo Narvaez that escaped, as you may read in the relation of Alvaro Nunnez, called Cabeca de Vaca) made; sent Frier Marco de Nica with a Negro of the said Dorantez to discover that countrey. Which Frier Marco de Nica being returned, and having informed his lordship of all his discovery, he sent Captain Francis Vasquez de Coronado with many Spaniards on horsebacke, and Indians on foot. * * * "

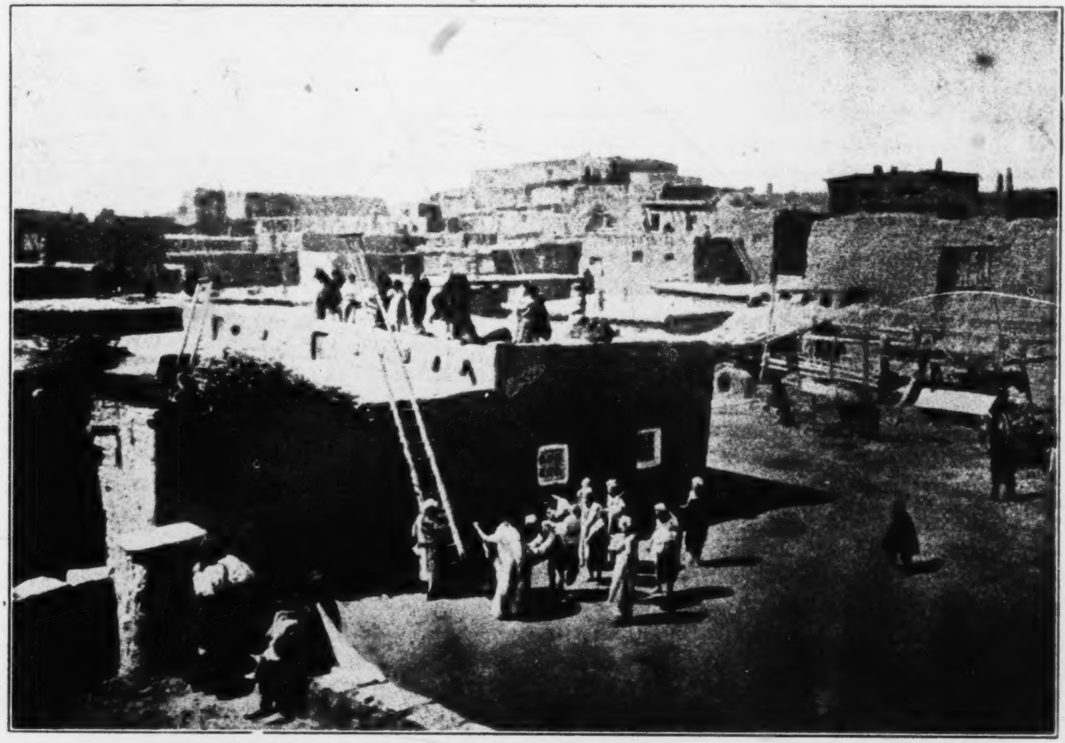
In a former part of this volume we have referred to the long journey of Cabeza de Vaca and three companions through Texas, New Mexico, and thence southward to the settlements of their countrymen in New Mexico, in the years 1535-36. The accounts of the northern country that had been given by these men when they reached the city of Mexico in July, 1536, had set the Spanish imagination aflame, and the wildest stories became current as to fabulous wealth in that mysterious land—the pueblo country of our New Mexico. Cabeza de Vaca reported that he had heard of a country, farther north than he had gone, where there were wealthy kingdoms, whose inhabitants were rich in silver and gold and precious stones. This appeared to fit a story told the Spaniards in 1530 by a Tejos Indian slave, who said that far away in the country to the northward he had seen seven cities, each as large and fine as the city of Mexico, in which gold and silver were abundant, and that many of their inhabitants were workers in these metals. Cabeza de Vaca had then been quickly provided with the means of going to Spain, where, upon his arrival, his tales produced as great a sensation as they had caused in Mexico.

Numerous Spanish cavaliers immediately and eagerly had craved a commission from their Emperor to explore and subdue this new land of promise. Francisco Vasquez de Coronado, "which was rich," was the favored one chosen by Charles V. for the undertaking. He was sent to Mexico with letters to the Viceroy, Mendoza, directing him to organize the expedition. Thus it was that Coronado came into the great drama of American history.

Mendoza was glad to coöperate, but had thought it prudent to send scouts to see the country and report to him before incurring the great expense of such an expedition. For this service the capable monk, Friar Marcos, of Niza, was chosen. Marcos set out in March, 1539, accompanied by Friar Honoratus, by the negro Estevanico [Stephen], who had been one of Cabeza de Vaca's party, by "certaine of those Indians which the sayde lord Vice-roy had made free and bought for this purpose," and by some dogs. Marcos and his companions returned in the autumn of that year, after having traveled into the north, as heretofore stated, to thirty degrees of latitude, according to his reckoning. Upon his return he had given most extravagant accounts of the wonders of the country he had visited and of the wealth of its people; very lavishly sustaining the romances of Cabeza de Vaca.

Preparations on a grand scale were then hastened for an expedition that was to conquer this land of treasure. Aside from the funds provided by the viceroy for the purpose, Coronado expended in equipping and outfitting the enterprise 60,000 ducats from his private fortune; a sum equivalent to more than $250,000 of our present currency.

The expedition started from Compostella, on the western coast of Mexico, on the first day of February, 1540. The three hundred Spanish cavaliers, zealous for God and athirst for gold, were attended by 800 Mexican Indians. About 1,000 spare horses carried their baggage and ammunition, and a large number of sheep, cattle, and hogs were driven along to furnish fresh meat; and, according to the practices of most of the Spanish explorers of that period, some dogs were included in the expedition's outfit. Four Friars, one of whom was Marcos, who served as a guide, went with the company to Christianize the natives of the supposed opulent region in the north; and Pedro de Casteñada de Nagera accompanied the expedition in the capacity of secretary. It was from the latter's records that the later historians derived much of their information concerning the details of the enterprise. The "army," as Coronado usually called it, reached Culiacan, the last Spanish settlement toward the north and "about 200 leagues" from the city of Mexico, on Easter Monday. Progress had been slow in consequence of the roughness of the country; and the difficulties of getting the live stock and other incumbrances through the mountainous regions had been great.


A View in Zuni.
(*From Hollister's "The Navajo and His Blanket."*)
This pueblo appears about as it did in Coronado's time.

Coronado left Culiacan in April on his march into the strange new land of riches, entering the present domain of the United States in the southeast corner of Arizona, passing east of the site of the city of Tombstone, and proceeding onward in a general northeastward direction. The march was toilsome and trying, and the principal goals, the "Seven Cities of Cibola," brought sore disappointment. In a letter to the Viceroy, written from the "valley of the Caracones" early in the summer of 1540, Coronado thus tells (Hakluyt's translation) of his long and rough journey, of Friar Marcos' misrepresentations, and of the fate of some of his live stock:

"* * * Wee all marched cheerefully through a very badde way which was not possible but one by one [single file], or else wee must force out with Pioners the path which wee found, wherewith the Souldiours were not a little offended, finding all that the Frier had sayde to to bee quite contrary: for among other things which the father sayde and affirmed, this was one, that the way was plaine and goode, and that there was but one small hill of halfe a league in length. And yet in trueth there are mountaines which although the way were well mended could not bee passed without great danger of breaking the horses neckes: and the way was such, that of the cattell which your Lordshippe sent us for the provision of our armie we lost a great part in the voyage through the roughnesse of the rockes. The lambes and sheep lost their hoofes in the way: and of those which I brought from Culiacan, I left the greater part at the River of Lachimi, because they could not keepe company with us, and because they might come softly after us, foure men on horsebacke remained with them, which are now come unto us, and have brought us not past foure and twentie lambes, and foure sheepe, for all the rest were dead with travailing through that rough passage, although they travailed but two leagues a day, and rested themselves every day."

Writing to Viceroy Mendoza from Cibola, the country of the "Seven Cities," to which he went from the valley of the Caracones, Coronado said (following Hakluyt):

"Heere are many many sortes of beastes, as Beares, Tigers, Lions, Porkespickes [porcupines], and certaine Sheepe as bigge as an horse, with very greate hornes and little tailes: I have seene their hornes so bigge, that it is a wonder to beholde their greatnesse. Heere are also wilde goates whose heads likewise I have seene, and the pawes of Beares, and the skins of wilde Bores."

As we have said in a preceding part of this volume where another reference to these "sheepe as bigge as an horse" is quoted from Hakluyt's version of a passage in Gomara's "Historia de las Indias," the sheep referred to by Coronado evidently were the wild bighorns of the Rocky Mountains; Gomara's allusion to them being as follows:

"There are also in this countrey other beastes as big as horses, which because they have hornes and fine wooll, they call them sheepe, and they say that every horne of theirs weigheth is fifty pound weight."

Coronado's goats obviously were Rocky Mountain wild goats, his tigers and lions may be referred to our miscalled "mountain lions" of the Rockies, and "the skins of wilde Bores" no doubt were those of peccaries.

These Spaniards came to the Rio Grande, which they called the "River Tiguex" and in 1540-41 wintered on its banks at a place which seems to have been definitely located between Albuquerque and Algadones; naming their wintering place "Tiguex," also. When Coronado was there again in the autumn of 1542, recuperating his band of heroes for a contemplated return expedition to Quivira in the following spring, he still had a few head of the sheep he had brought from Mexico; these having been left with that part of the little army which had remained in New Mexico while the great leader was absent on his journey to and from Quivira. Some of these historic sheep were taken far out into the Mississippi Valley, but what became of them no man knoweth. When the contemplated second expedition from Tiguex to Quivira was abandoned in the spring of 1543, and the little army prepared to return to Mexico, three of the friars who had come from Mexico with the company resolved to remain behind to engage in the work of propagating the faith among the natives. Of two of these, and of what they did and of their fate, we quote from Hakluyt's translation from Gomara:

"Frier John de Padilla stayed behinde in Tiguex with another of his companions called Frier Francis, and returned to Quivira, with some dozen Indians of Mechuacan [in Mexico], and with Andrew de Campo a Portugall, the gardiner of Francis de Solis: Hee tooke with him horses and mules with provision. Hee tooke sheepe and hennes of Castile, and ornaments to say Masse withall. The people of Quivira slew the Friers, and the Portugall escaped with certaine Indians of Mechuacan. Who albeit at that time hee escaped death, yet could hee not free himselfe out of captivitie: for by and by after they caught him againe. But ten moneths after hee was taken captive, hee fled away with a couple of dogs [evidently two of those brought from Mexico by Coronado]. As hee travailed hee blessed the people with a crosse, whereunto they offered muche, and wheresoever hee came, they give him almes, lodging, and foode. Hee came to the country of the Chichimechas and arrived at Panuco."

The third Friar, Luis, chose Cicuye as the locality of his labors, and the last that was seen of him by white men was by a few of the Spanish soldiers, who by Coronado's order took some sheep to him; the Friar then being on his way to visit an Indian village a dozen miles or so from Cicuye (the present Pecos). "He was a man of good and holy life," says Casteñado; "I hope that our Lord graciously permitted him to convert some of those nations, and that he ended his days in feeding his spiritual flock."

We are further told that "It grieved Don Antonio de Mendoza very muche that the armie returned home: for he had spent above threescore thousand pesos of golde in the enterprise, and ought [owed] a great parte thereof still. Many sought to have dwelt there; but Francis Vasquez de Coronado, which was riche, and lately married to a faire wife, would not consent, saying, that they could not maintaine nor defend themselves in so poore a countrey, and so far from succour. They travailed above nine hundred leagues in this countrey."

After Coronado's disappointing and practically fruitless operations in the northern country, no further attempts were made by the Spaniards to explore New Mexico for some forty years. In 1581 the Franciscan Friar, Augustin Ruiz, with two others of his order and a small escort of soldiers, came out of Mexico and traversed the valley of the Rio Grande to a pueblo town about eight miles north of the site of the present Albuquerque. Here the soldiers became alarmed and started back, leaving the Friars to go on, as they had elected to do; the devoted missionaries being slain by the pueblo Indians soon afterward.

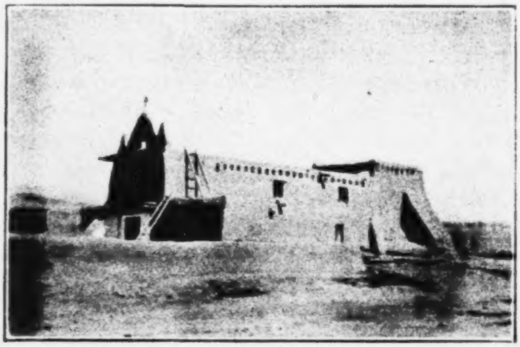
In 1582 Don Antonio de Espejo was sent by the Viceroy of New Spain to learn the particulars of the fate that had overtaken these Friars; his large and well-equipped expedition having entered New Mexico about the close of that year. Espejo learned that the missionaries had been killed by the natives, and spent about eighteen months in exploration of the pueblo country. He turned homeward in the summer of 1584, going southward by way of the Pecos River Valley, in which he saw great herds of buffalos. The old Spanish account of this enterprise, as translated in Hakluyt's "Voyages," says concerning this part of Espejo's homeward journey: " * * * being guided by an Indian that went with them, who led them another way than they went forth by, downe a river, which they called Rio de las Vacas; that is to say, The River of Oxen, in respect of the great multitude of oxen or kine [buffalos] that fed upon the bankes thereof, by the which they traveiled for the space of 120. leagues, still meeting with store of the sayd cattell."

This name has held good over into modern times, for the Pecos long has been a River of Oxen, though of another kind.

By some writers Espejo is said to have founded a mission in the pueblo town that later became the Spanish "city" of Santa Fé, and is held by them to be the founder of that city as a Spanish settlement. No doubt he set up a mission at some one of his tarrying-places in that district, but it could not have been anything more than a temporary establishment, as much for the benefit of his own people as for the natives; for his was an exploring expedition and not one for colonization. It was not until 1605 that the first Spanish colony settled at Santa Fé, and therefore the history of the place as a Spanish town usually is dated from that year.

Espejo's reports of the mineral riches of New Mexico led to the organization of the ill-starred Borilla-Humano expedition a few years later, and which, according to some of the accounts, rivaled that of Coronado in audacity and the distance traveled; as it appears to have gone far northeastward into the plains country. However, it accomplished nothing of permanent interest, and all but three of the party met death at the hands of the Indians.

The first organization having for its specific purpose the founding of a Spanish colony in New Mexico was that of Don Juan de Oñate, of Zacatecas. Oñate, to whose undertaking some reference has been made in an earlier section of this volume, made a formal application to the Viceroy of New Spain for authority to establish colonies in the upper part of the Rio Grande country, offering to provide at his own expense not less than 200 soldiers, together with all of the live stock, tools, goods, and appliances necessary properly to provide for the venture. In return he asked, of course, for the usual rewards of discoverers and colonizers—authority, nobility, and wealth in lands and money. The Viceroy granted the authority, which was afterward confirmed by the King of Spain in ample form by a decree dated July 8, 1602. However, Oñate did not wait for this confirmation, but organized his enterprise under the Viceroy's approval. The expedition as finally constituted consisted of above 700 soldiers and 130 families of colonists; the latter taking with them everything needful for permanent settlement, including a large number of sheep and cattle. Ten Franciscan Friars accompanied the party, which included at its start a total of about 1,250 persons; but before it had proceeded far desertions became numerous, so that when New Mexico was actually reached scarcely more than one-half of the original company remained, but the desertions had been mainly among the soldiers and had not materially affected the colonist families.



The Old San Ildelfonso Church.
(*From a photograph.*)

The expedition set out from Zacatecas in 1591, and proceeded northerly through the present States of Durango and Chihuahua to the Rio Grande. It then marched up the valley of that river, much as Espejo had done, encountering the same native peoples, and being uniformly well treated, until it arrived at a point much farther north than any to which its predecessors had gone; and finally selected as the center of the proposed settlements the sheltered valley on the north side of the Chama River just above its junction with the Rio Grande in the northern part of the present Territory.

Near by was founded the "convento" of the Franciscan fathers, San Ildelfonso, which was the center of their missionary enterprise and activity for many years. The first settlement, which originally was called the "City of New Mexico," never became a place of much importance, being outstripped by each of several others that were established soon afterward in that part of the country; but its site long will be of deep historical interest to the people of New Mexico.

Notwithstanding various discouragements in the beginning, and the return to Mexico of some of the families and many more of the soldiers, Oñate's colony took root firmly and became contented and prosperous within a few years. Fresh emigrants followed those who had composed the first expedition, and other settlements were made in that general part of the Rio Grande Valley. Oñate founded Santa Fé in 1605, where the Franciscan fathers established the Mission of Santa Fé de Francisco (the "Holy Faith of St. Francis"), from which the town took its name.

Oñate made extensive explorations; one as far to the northeast as Nebraska. He was the colonizer of New Mexico, which has been the abode of white men from his time to ours.

No hostility to the presence of the new people was manifested by the native population. On the other hand, the Indians assisted the Spaniards, doing much of the labor in building and in cultivating crops. To these pioneer Spanish settlers in New Mexico, as well as to those who came after them, sheep were far the more important of their domestic animals, and at that early time sheep-raising became the characteristic industry of the country, and, as we have said, it has continued to be the characteristic industry of New Mexico from that time to our own; although it was interrupted in Spanish hands for a few years after 1680.

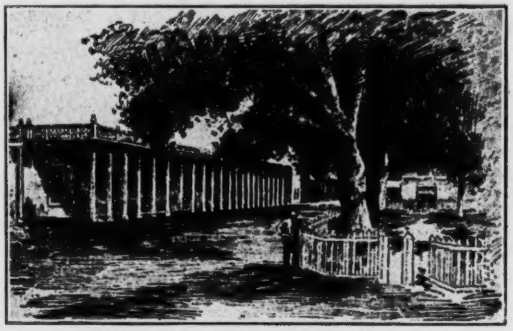
It is not essential to the purposes of this work that we consider the various Spanish exploring and colonizing expeditions into New Mexico that followed Oñate's success in planting a colony on the upper Rio Grande. Settlements rapidly were increased, and Christianity was introduced and propagated among the natives with remarkable zeal. The later settlers in that period did not attempt to establish many towns far beyond the mountains that mark on either hand the boundaries of the Rio Grande Valley; but the zealous missionaries did not confine themselves within any such narrow limits. They were willing and ready to go anywhere, and soon were traversing the country everywhere. As early as 1608 it was reported that 8,000 pueblo Indians had been converted and baptized. Twenty-one years later the number of converts had increased to 34,650; and not less than forty churches had been built for the ceremonies and other purposes of the Roman Church.

But as time passed and the colonists increased in number and in prosperity, the priests resorted to means other than those of pious example and gentle persuasion to bring converts to their faith. Men whose zeal far outran their discreion took part in the work, and the spirit of persecution then dominant in Europe began to exert its baleful influence among the peaceful and kind-hearted natives of New Mexico; and conversion by force and oppression instead of love and persuasion became the rule. The Inquisition was introduced, and soon became the dominant power in the province, compelling even the highest Spanish civil officers to do its bidding, or subjecting them to removal, disgrace, and punishment if they dared to exercise independence in their action or attempted to interfere with the arbitrary and often cruel edicts of its imperious representatives. The courts assumed jurisdiction over the entire province, and imposed severe punishments upon the Indians for even the most trifling violation of any of the Spanish laws—civil or ecclesiastical; introducing an entirely new criminal system incomprehensible to the mass of the native people. For slight infractions of edicts of which they were often ignorant, men and women were whipped, or condemned to be sold into slavery; the latter punishment being encouraged, because it provided the labor of which the Spaniards stood in need. Thus, greater power and control over the Indians was assumed, until in the course of years many of them had been reduced to actual slavery and many more to a condition of servitude that differed but little from it. The introduction of mining and its rapid extension over the province aggravated their hardships, for the labor, which was exceedingly dangerous as well as toilsome, was performed almost entirely by Indians forced to work under the direction of unfeeling taskmasters.

Around the middle of that century (the seventeenth) there was a succession of revolts and conflicts arising from these circumstances. Many of these were local, and all were swiftly suppressed, the leaders being treated without mercy. But in 1680 the storm broke with a fury that swept the Spaniards out of the province. Under the leadership of Pope, a San Juan Indian, the whole native population had been united for a war of extermination against their oppressors, for which the latter were almost entirely unprepared. The Indians swarmed down upon them, massacreing and burning, and laying waste the country and the Spanish towns. Some women and children were made prisoners, but all the rest of the survivors were driven in a rout down the valley of the Rio Grande toward Mexico. Not enough horses remained to carry even the sick and the wounded; so that all of the others, including women and children, had to make their way afoot, laden with such things as they deemed indispensable in their flight from death. Not a Christian remained alive and free within the limits of the province, and those who had been dominant a few months before, now were either dead or wretched and half-starved fugitives.

The unfortunate priests who had been left in the midst of the natives met with horrible fates. The naturally mild-natured pueblo Indians became almost demoniac in their desire for cruel vengeance. Eighteen isolated priests, many of whom were men of great kindness and benevolence, perished miserably. Some were stripped, beaten, and mutilated, and then finished by stoning; others were dragged about by ropes around their necks and tortured until death came to their relief. At Jemez the Indians indulged in refinements of cruelty. An old and good priest, Jesus Morador, was seized in his bed at night, stripped naked and mounted on a hog, and thus paraded through the town and beaten and mutilated, while the crowd shouted and yelled around him. Finally they took him off the hog and forced him to get down on all-fours, and to carry them on his back, crawling on his hands and knees, until, from beating and gashing, he fell dead among them.

The pueblo Indians had been spinners and weavers—so long that they had even no traditional knowledge of their acquisition of these arts. The presumably much older people in that region, the so-called Cliff-Dwellers, also were spinners and weavers, cotton cloth of good weave and texture having been found among their very old relics in their ruined habitations. De Vaca told of having seen cotton cloth in use among the natives when he passed through the New Mexico country; fine cotton shawls being among the fabrics that he mentioned. The exuberant Friar Marcos had a good deal to say about the clothing worn by the natives whom he encountered, and tells of the long cotton gowns, reaching to the feet, that were worn by some of the men of Cibola whom he met. He further stated that he heard of people who wore garments made of woolen cloth, and of this he said (Hakluyt's translation):



The Old Spanish "Governor's Palace" in Santa Fé. (*From Inman's "Old Santa Fé Trail."*)

"And having my garment of gray cloth, which in Spaine is called *caragoca*, the Lord of this village [which was 'a pleasant Towne'] and the other Indians touched my gowne with their handes, and told mee, that of such Cloth there was great store in Totonteac, and that the people of that countrey wore the same. Whereat I laughed, and sayde that it was nothing else but such apparell as they wore. And they replyed: Wee would have thee thinke that wee understand, that apparell which thou wearest, and that which wee weare are of divers sortes. Understand thou, that in Cevola [Cibola] all the houses are full of that apparell which wee weare, but in Totonteac there are certaine little beastes, from which they take that thing wherewith such apparell as thou wearest, is made. I prayed them to informe me more playnely of this matter. And they tolde mee that the sayde beastes were about the biggnesse of the two braches or spaniels which Stephan [Marcos' negro companion] carryed with him, and they sayde that there is great store of that cattell in Totonteac."

There is no doubt that the pueblo Indians of that period cultivated the cotton plant and wove its fiber into cloth. In the accounts of Coronado's expedition the natives are described as being dressed in cotton clothing; and those of Espejo's explorations tell of the people being dressed in striped cotton cloth, and say that a chief of a pueblo near the site of the present city of Albuquerque presented Espejo with 4,000 bolls of cotton, of which product that community was represented as growing large quantities. Later Spanish adventurers told of trading with the pueblo Indians for cotton and woolen cloths to replace the worn-out clothing of their soldiers. The material from which this so-called woolen cloth was made might be supposed to have been the undercoat of the Rocky Mountain bighorn—the "sheepe as bigge as an horse"—were not "little beastes" so emphatically specified. Concerning this matter, General U. S. Hollister, in his charming book, "The Navajo and His Blanket" (Denver, 1903), says:

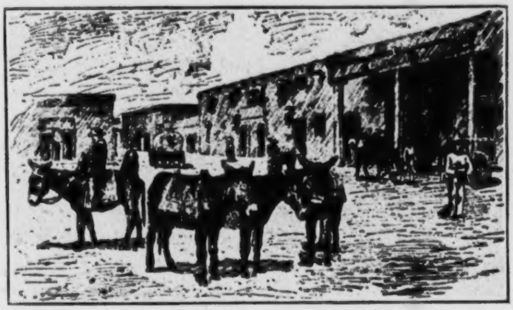
"But the tales about woolen cloth being in use by the Pueblos at that time were evidently due to lack of care in ascertaining and recording facts. It is, however, possible that the llama or some similar animal capable of affording material for a fabric resembling one of wool, flourished in Mexico in early times, and that it was cloth made of such material that the Spaniards supposed to be made of wool. But as there is neither knowledge nor tradition of the natives ever having had such animals, it is more probable that the woolly hair of the buffalo which was common in that country, or the fur of the rabbit which may have been the little animal mentioned by Marcos, was used to make such cloth."

After Oñate's initiation of the settlement of the New Mexico country, and as the pueblo Indians were gathered into the church, the latter had been supplied with sheep by the Spaniards, and soon became careful and successful shepherds. Wool then was made almost the sole material that they used in their weaving. When they expelled the Spaniards in 1680, they destroyed almost everything that could remind them of the power that had made Spanish rule unbearable—churches, crosses, books, vestments, records, and official documents, all went up in fire and smoke. But they kept their sheep, and after the storm had subsided they sought to settle down to their old-time peaceful and easy modes of life that now would be made easier by the possession of these gentle and eminently useful animals. However, their period of freedom proved to be a short one, and in great measure this was due to tribal politics. Of this General Hollister says:

"During the period of Spanish domination such tribal laws as the Pueblos had had before the coming of the Spaniards had been almost forgotten by the old, while the young had never personally known them. Hating bitterly the laws and the rule which they had overthrown, freedom was accompanied by extremely diversified sentiments among the people, and therefore they soon found the problem of self-government a difficult one. An attempt was made to unite all the tribes under the direction of a single ruler, but there were, however, too many conflicting interests; too many village clans; too many ambitious chiefs; too many crafty, designing medicine men; and not sufficient knowledge of even the simplest tribal laws to stem the current of dissension that finally arose. They began fighting among themselves, and civil strife destroyed the power of numbers."

The defeated but not dismayed Spaniards came back in force, and by midsummer of the year 1694 had completely re-conquered the province and reduced the pueblo tribes to subjection. An attempt at another uprising was made in 1696, but this was swiftly suppressed. The Spanish population increased rapidly during the next several years, and the end of the seventeenth century saw the country entirely at rest and prosperous.

The eighteenth century, throughout its course, was for the province a period of comparative quiet. The pueblo Indians, demoralized by tribal divisions, and weary of revolts that never proved permanently successful, made no trouble during the hundred years. With the wilder tribes, however, there were frequent hostilities. These made annual forays upon the more exposed settlements, taking away the sheep and cattle, which formed the principal property of the people. Sometimes when in force they attacked the larger settlements; and many of the old towns to this day contain the remains of forts and *torreons* built for defense against these inroads. The Comanches were responsible for a great deal of this trouble, and made the running off of stock a specialty in their predatory transactions with the Spaniards and the pueblo Indians.



Scene in Old Santa Fé.
(*From Inman's "Old Santa Fé Trail."*)

By the close of that century, and even before, the sheep-raising industry had attained rather large proportions in New Mexico, though not relatively so great as in southern California and in Old Mexico; probably because of the longer distance from sea transportation for the flock products that were marketable abroad at that time. Yet some of the Spanish landed proprietors in the Rio Grande Valley had flocks that numbered well into the thousands.

When Lieutenant Zebulon M. Pike in 1807 as an unwilling guest was being escorted by the Spaniards from Santa Fé down into Mexico and thence around eastward through that country and across Texas to American soil at Natchitoches, Louisiana, he was especially impressed by by the number of sheep that he saw at several places on his long and winding way. At Cebolleta, spelled by Pike in his "Account" "Sibilleta," on the Rio Grande, about one-third of the distance from Santa Fé to El Paso, he fell in with a south-bound caravan consisting of about 300 men, escorted by an officer with some thirty-five or forty soldiers, who were conducting 15,000 sheep to El Paso. These had been collected from several parts of New Mexico, and were to be sold or exchanged for merchandise. Pike's party arrived at El Paso March 21st, and became the guests of Don Francisco Garcia, who, Pike says, "was a merchant and a planter; he possessed in the vicinity of the town twenty thousand sheep, and one thousand cows." While proceeding through the Province of Durango, Old Mexico, Pike says he passed a place the proprietor of which "had one hundred thousand sheep, cattle, horses, &c."

In his note on the "Trade and Commerce" of New Mexico this intelligent and observant explorer tells us, among other things, of the market values of sheep and other live-stock animals at the time of his enforced visit to the province:

"New Mexico carries on a trade direct with Mexico and Biscay, also with Senora and Sinaloa. It sends out annually about thirty thousand sheep, tobacco, dressed deer and cabrie skins, some fur, buffalo robes, salt, and wrought copper vessels of a superior quality. It receives in return from Biscay and Mexico dry goods, confectionery, arms, iron, steel, ammunition, and some choice European wines and liquors. From Senora and Sinaloa gold, silver, and cheese. The following articles sell as stated, in this Province, which will shew the cheapness of provision, and the extreme dearness of goods: flour at two dollars per hundred, salt five dollars the mule-load, sheep one dollar each, pork twenty-five dollars per hundred, beeves five dollars each, wine Del Passo fifteen dollars per barrel, horses eleven dollars each, mules thirty dollars each; superfine cloths twenty-five dollars per yard, fine ditto twenty dollars, linen four dollars, and all other dry goods in proportion. The journey with loaded mules from Santa Fé to Mexico and returning takes five months. They manufacture rough leather, segars, a vast variety and quantity of potter's ware, cotton, some coarse woolen cloths, and blankets of a superior quality. All these manufactures are carried on by the civilized Indians, as the Spaniards think it more honourable to be agriculturists than mechanics. The Indians likewise far exceed their conquerors in the fecundity and variety of genius in all mechanical operations."

After commenting on the excellence of some irrigation systems that he saw in the Rio Grande valley, Lieutenant Pike goes on to say:

"They cultivate corn, wheat, rye, barley, rice, and all the common culinary plants of the same latitude in the United States. But they are at least a century behind us in the art of cultivation, for notwithstanding the numerous herds of cattle and horses, I have seen them frequently breaking up whole fields with the hoe. Their oxen draw by the horns [with a head-yoke] after the French mode [as in Spain also]. But their carts are extremely awkward and clumsily made. During the whole of the time we were in New Spain I never saw one horse in a vehicle of any description, mules being made use of in carriages, as well as for the purpose of labour."

Pike was not the first American visitor to Santa Fé. During his brief stay there he met James Pursley, a carpenter, who hailed from Bardstown, Kentucky, who, at the termination of a harassed trading expedition among the plains Indians, had put into Santa Fé late in June, 1805, and there was working at his trade. Baptiste La Lande, an American of French extraction, was sent from Kaskaskia, Illinois, in the spring of 1804 by William Morrison, a merchant of that place, with a stock of goods for frontier trade, under instructions to go as far as Santa Fé in search of business. He reached New Mexico without mishap, sold his stock at good prices, pocketed the proceeds, and remained at Santa Fé. During the next few years several American adventurers, including some fugitives from justice, found their way into the province and imposed their presence upon the towns of Taos and Santa Fé.

When the Santa Fé Trail, of which an account is given elsewhere in this volume, had become an established route of commerce, American traders and merchants began to settle in New Mexico and engage in business. Some of these were of our western pioneers known as "St. Louis French," and to them are due the French names of persons and places that still exist in the northern part of the present Territory. Jules Roubideau, who was one of the early fur-traders in the Rocky Mountain country, settled at Taos in 1822, and in 1827 Charles Beaubien located there and a year later married the sister of Don Pedro Valdez. His four daughters married respectively Lucien B. Maxwell, Jesus G. Abreau, Joseph Clouthier, and Frederick Mueller. Beaubien had been one of the grantees of the enormous "Beaubien and Miranda Land Grant," to which his son-in-law Maxwell later gave the name "Maxwell Grant." Four of the six Bent brothers of St. Louis, Charles, William, Robert, and George, early became identified with the business affairs of the province; and Ceran St. Vrain was a very prominent contemporary of the Bents. In 1829 the Bents built "Bents' Fort," a large trading-post on the Arkansas River, in what is now eastern Colorado; and in 1832 Charles Bent and St. Vrain commenced business at Taos. Kit Carson went to Santa Fé in 1826, and later located in Taos, which remained his home until his death in 1868. Other prominent Americans in the province in that period were James Conklin, Samuel B. Watrous, and James Bonney; Conklin having settled in Santa Fé in 1825.

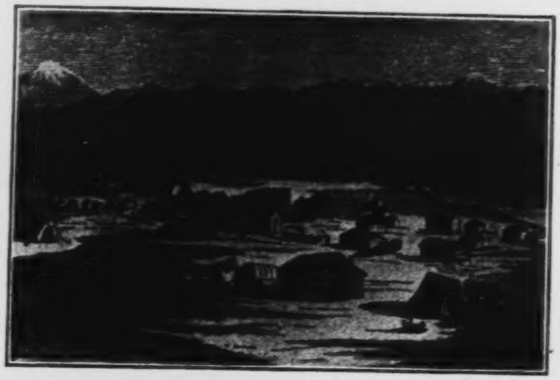
Some of the American residents became stock-raisers, and acquired large herds and flocks. Perhaps the most noted of those who did so was Lucien B. Maxwell, who, in his later days, had on his "Home Ranch" on the Cimmarron River 40,000 sheep, 10,000 cattle, 1,000 horses, with 500 men taking care of his property. During the closing years of his adventurous and successful life, Maxwell lived there in leisure and profusion, lavishly hospitable, and literally "lord of all he surveyed."

Until Texas achieved independence, that part of the plains region of Colorado lying south of the Arkansas River was Mexican territory. During the first quarter of the nineteenth century, the Mexican stockmen, most of whom were sheep-raisers, pushed northward far into the upper part of the Rio Grande Valley, and also into the southern plains section of the present State of Colorado. By 1830 there were several groups of these shepherd-settlers on the Greenhorn and Huerfano Rivers in what are now Pueblo and Huerfano Counties, Colorado; but after a few years these were compelled by Indian hostility to withdraw to the southward. About 1840 a small trading-post was established on the site of the present city of Pueblo, and in 1842 a more pretentious structure was built there on the American side of the Arkansas. A collection of Mexicans, traders, and trappers assembled there, and a few years later this community was reported as having "a tolerable supply" of sheep, cattle, horses, and mules. But within fifteen years the place was abandoned.

One of the consequences of the annexation of Texas and of the ensuing war with Mexico was the acquisition by the United States of a considerable population of Spanish origin that was divided between Texas, New Mexico, and California. But probably the greater part of it dwelt in the Province of New Mexico, the boundaries of which, as the reader will recall, were far more extensive than those of the present Territory. In June, 1844, the Spanish Governor, Martinez, by proclamation divided the "Department of New Mexico" into three civil divisions, the southeast, the central, and the north, to which he attributed populations that aggregated 99,204—figures which would seem to have included the civilized pueblo Indians.

The occupation of New Mexico by the American troops practically was a bloodless conquest, and the change of allegiance caused no serious shock to the Spanish-Mexican population of the old province. The people went on in their usual vocations in their easy-going ways, sheep-raising continuing to be the more important of their pastoral operations. But the Territory long was hampered by the lack of transportation facilities for getting its products to outside markets, and therefore its development comparatively was slow.

The Republic of Texas claimed a much larger area of territory that is embraced by the lines of the State of Texas. The course of the Sabine River northward to the Red River marked its eastern boundary, as it does that of the State, and the Red River westward to the 100th meridian also remains an unchanged boundary. The line then ran north on that meridian to the Arkansas River in the southwestern part of the present State of Kansas—about three-fifths of this distance still being a part of the Texas boundary. From the intersection of the 100th meridian with the Arkansas, the line followed the course of the river westward to the Continental Divide in what is now central Colorado, where it turned and ran due north into Wyoming to the 42d parallel of latitude. In the west the Texans claimed the Rio Grande clear to its extreme headwaters in the southwestern part of the present Colorado as a part of their boundary in that direction. From this then indefinitely known locality, their line ran due north into what is now Wyoming, to the 42d parallel; and thence east to the point where the line from the Arkansas headwaters joined to that parallel. This made more than one-half of the present New Mexico and a large part of southeastern Colorado Texan territory, and also gave the Texans a long, tongue-like strip, about one and one-half degrees in width, extending northward through the western half of Colorado and about one and one-half degrees into Wyoming; the present city of Rawlins, Wyoming, being well within the upper end of this one-time strip of the Lone Star Republic's extensive territorial claims. While that republic never succeeded in establishing its authority in these remote parts of its domain, and while Mexico never recognized the claims, the Texans persisted in asserting their right to them even after the war with Mexico. But in 1850 the State of Texas, for a satisfactory consideration, relinquished them to the general Government, and the settlement left the State with its present boundaries.

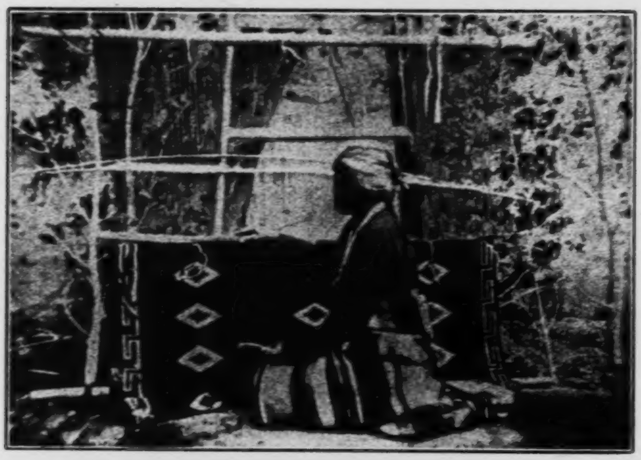


View in Denver in 1859.
(From Barber's "Western States and Territories.")

By an act of Congress in 1850 the Territory of New Mexico was created with boundary relations to Texas as they are now. It embraced the region west of Texas and extending to California; but northward its area ran up to the 38th parallel. This parallel crosses the southward bend of the Arkansas River at the town of La Junta, Colorado, and therefore this northern line threw the site of that town into the new Territory.

When Congress, in February, 1861, created the Territory of Colorado, with boundaries the same as those of the present State, the 102d meridian was made its eastern line and the 37th parallel its southern; one degree of latitude being cut off from New Mexico. In the meantime the stockmen of New Mexico had more extensively occupied the grazing sections of the northern part of their Territory, and, while there were many cattlemen among them, the great majority was engaged in sheep-raising. The population of the Territory, as a whole, still was Mexican; the American element in it constituting but a very small minority. In the main, the sheepmen were Mexicans, although, as in the case of Lucien B. Maxwell, there were some Americans who owned large flocks.

Thus, by its organic act, the Territory of Colorado came into existence with the range sheep-herding industry well established in its southern borders, but it was not until after our Civil War that this industry attracted the attention of northern stockmen and began to be extended northward along the eastward base of the Rocky Mountains. However, this movement was comparatively slow, and, generally speaking, the sheepmen followed the cattlemen into the northern grazing regions, and therefore were later in getting foothold in these sections of the country. Many Mexican sheep-owners of southern Colorado and New Mexico participated in this extension of the industry, but most of those who did so found the northern country less agreeable, and returned to their old ranges south of the Arkansas River.



A Navajo Weaver at Her Loom.
(From Hollister's "The Navajo and His Blanket.")

The Mormons had sheep grazing on natural pastures in the Salt Lake country before the Civil War, and there were flocks in northern California, in Oregon, in the Territory of Washington, and some in the extreme western parts of the Nevada section of the old Territory of Utah in the same period. But, as a business, sheep-raising in these States and Territories (excepting the southern part of California) then was a minor industry and not characteristic, as it has been of New Mexico for so many years, and as it largely is of Wyoming Utah, Idaho, and Montana at the present time. The same also may be said of Texas, in which range-flocks of sheep have flourished from the settlement-period, but always have been of subordinate importance in comparison with the cattle-raising industry, and, for a long time, if not from the beginning, with that of agriculture proper. While original stock for the northerly sheep-ranges was drawn from other parts of the country, as well as from southern Colorado and New Mexico, the sheep-raising industry as it now exists in the central and northern parts of the great semi-arid plateau of the West is, from the historical point of view, an amplified institution derived from New Mexico in exactly the same sense that the range-cattle business on the great plains was an extension of an industry that has been characteristic of the Lone Star State from the beginning of its history.

The sheep-raising industry in the plateau region of the West has had a remarkable development in recent years, and has become one of great magnitude. But as its extension and present-time importance are dealt with in other parts of this work we shall, in conclusion, here turn to some consideration of what has been done by a rather exceptional tribe of our western Indians, who have been industrious sheepmen without intermission for more than two centuries and who are likely to continue to be for many years more. These are the Navajos, who are on a large reservation in northwestern New Mexico and northeastern Arizona. While the sheepmen of our own race have done well they have been excelled in some respects by these copper-colored shepherds; for the latter have not only raised sheep from early times in the history of New Mexico, but have clipped the fleece, dyed the wool with vegetable dyes of their own making, spun it into yarn, and woven it into excellent and often beautiful fabrics; doing all of this work within their own resources and with appliances of their own contriving. We have referred to these Indians as being exceptional, for the reason that they form the only tribe of the red people of our country that, while in the "wild" and roving modes of life, borrowed practices of the white men and from these developed among themselves a tribal industry that long has been characteristic of them.

The partly civilized pueblo Indians had, as we have told, been spinners and weavers through many generations, and other Indian tribes in the southwest, as well as those of the Pacific coast, long had practiced the weaving or plaiting of grasses, reeds, and the like into baskets and other forms. Indeed, crude weaving or plaiting has been more or less practiced by all savage races, and such rudimentary forms of the art were familiar to pre-historic peoples, probably having been developed next after the making of rude weapons of stone. The Navajos began loom-weaving soon after they had acquired sheep above 200 years ago, and gradually introduced into their fabrics varied and striking patterns in brilliant colors, these usually being symbolical or mystic in their purposes; and since they came under the jurisdiction of the United States in consequence of our war with Mexico, they have developed their weaving into a profitable commercial industry. In recent times they began using some of the white man's ready-made dyes and also some of the white man's ready-dyed yarns, but formerly all of their dyes were of their own making and all of their yarns of their own spinning; but the fabrics that are entirely of their own production are much better than those woven of "factory"-made yarns.

The Navajos are intruders in the pueblo region and are in no manner related to the pueblo tribes, having originally been "plains" Indians. They are, like the Apaches and others of our western tribes, a branch of the great Athabascan family of red people of British America, and are believed to have migrated southward about 500 years ago. While not warlike in the sense that the Sioux and many others of the plains tribes were, the Navajos appear early to have demonstrated their aptitude for raiding and general marauding among their Indian neighbors. The Spaniards could make no headway among them, and the Navajos always were extremely hostile to the conquerors, a feeling that existed unabated down to the time of our war with Mexico. The American army under General Stephen W. Kearney occupied Santa Fé on August 18, 1846, without resistance, and in the course of his address to the assembled citizens the next day, in which he gave them many good reasons for peaceably and sincerely accepting the change of allegiance, General Kearney said:

"From the Mexican government you have never received protection. The Apaches and the Navajos come down from the mountains and carry off your sheep and even your women whenever they please. My government will correct all this."

Of the history of the Navajos, from about the period of the invasion of New Mexico by the Spaniards, and of their present-time modes of life and conditions as sheepmen, General Hollister says ("The Navajo and His Blanket"):

"At this time [before the Spanish conquest] the Navajos were not a great Indian nation. The tribe was small and, from the best evidence we can now obtain, was not of a warlike disposition. They were not noted for success in hunting wild game, and subsisted very largely upon nuts and roots, clothing themselves with the skins of such animals as they killed. They soon began to receive recruits from the Apaches and other neighboring tribes, which accounts for their present composite or mixed character as a race; but prior to 1680 they were not strong enough to engage in anything but a predatory warfare with neighboring tribes. They have always been known as 'field' or 'plains' Indians, to distinguish them from the habitually sedentary tribes, like the Pueblos."

"The industries of an aboriginal people are shaped by their surroundings and by the character of the country in which they live. The climate, soil, forests or plains, adaptability for agriculture, and game for the chase, all help to determine how they can best sustain life; and when this is decided, their habits will be found to reflect their environment."

"The Navajos are sedentary only to the extent that they have for a long time occupied about the same region. Within this immense area they have been restless, wandering shepherds without permanently fixed habitations. Soon after 1662, by pillage or barter, they had secured a few sheep from the Pueblos, who, in turn, had obtained them from the Spaniards. This acquisition had much to do with changing their mode of living; and as they learned the art of weaving, it marked the beginning of an important epoch in their tribal history.

"The Navajo country is not adapted to extensive agricultural operations, and probably was not well supplied with game even in the earlier times; but if it had been, it would not have taken many years for its new occupants to destroy the wild animals to the extent, at least, to make them a precarious dependence as a source of food supply. The climate demanded clothing far beyond the supply of the skins of the wild animals, and some industry had to be found suited to their environment, or the people must migrate again.

Scene ni a Valley in the Navajo Country.
(From Hollister's "The Navajo and His Blanket.")

"Fortunately, the pasture-land helped them to solve the problem, and the Navajos turned out to be good shepherds. Their flocks increased until, for a number of years, they have counted a half-million sheep as their own. This industry influenced their destiny, and transformed them from marauders into a comparatively peaceful and pastoral people. Nearly every family owns a flock of sheep and goats; the flesh of the latter being more generally used for food than that of the sheep. For their population of 20,000, their herds have an average of twenty-five sheep to every man, woman, and child. The tendency of the flockmaster of the west is toward wealth, and the Navajos have proceeded far enough in that direction as to be beyond want, while many of them are rich. It is to be remembered that what would be good pasture land in the Navajo country, would be thought to be barren waste the East, or in other lower altitudes. It requires about six acres to feed properly a single Navajo sheep, and as water is scarce and found only at long intervals, the shepherd must keep his flocks moving constantly.

"The whole family moves with the sheep and lives practically out of doors; or, at best in hastily constructed shelters made by throwing up a circle of brush, and covering it, or not, as material may or may not be at hand. These changes from one pasturage to another often take a family over hundreds of miles, and during this migratory life the spinning and weaving go on, the simple machinery required for the industry being a part of every camping equipment. As winter approaches, they turn toward sheltered places, but may or may not return to the abode of the previous winter."

Of a scene in the Navajos' country, the same writer presents us with the following word-picture:

"As the noontime approaches, the sun seems to pause overhead, where, in a dome of purest blue, it glows and burns, and parches the earth; but, under its influence, the valleys have revealed their wealth of wild flowers, cactus, sage, and bright-leafed shrubs, that rival the barbaric colors of oriental drapery. The mountains with their gleaming caps of snow stand out in strong relief, in blue and gray and purple tints, and in ever-shifting lights and shadows. An eagle slowly and in great circles soars high in the blue sky. A coyote calls to his mate across the mile between mesa and mesa; or, in the shade of a cedar naps or idles the day away—a lazy vagabond, waiting for the night. On a distant trail, a Navajo on horseback, watching his sheep, shades his eyes and looks across the valley into the vast expanse of light; and in the distance he can see the smoke from the hut he calls home. He looks at the grandeur of the whole scene through the rarefied air of an elevation more than a mile above the sea; through an atmosphere which, acting like the lens of a telescope, brings far-distant objects within easy range. The great panorama of mountain and plain, of mesa and valley, of arroya and cañon, shaded here and there by pine and cedar, dwarfs every living thing. The stillness is the stillness of solitude; the beauty, the beauty of Nature undefiled."

The surviving tribes of pueblo Indians, in New Mexico, continue to live the gray life of their ancestors, and to keep sheep as they have done since the coming of the pioneer Spanish settlers into their country. They present a picture of life, which in most respects is the same as it was then, and even as it was centuries before the Spanish conquerors first laid hungry eyes upon them. While many of them bear Spanish names, and most of them outwardly are faithful to the Roman Catholic religion, and also while some wear American-made clothing, and have American weapons, they are in reality but little changed. They still live in their strange community houses, that are piled story above story, with ladders to reach the parts above—an entire community sometimes being housed in one structure. They still gather in the winter evenings before the fire in the long hall of the pueblo, to talk over the times that are gone, and to repeat the legends, traditions and other stories that have come down to them from their forefathers; and in their secluded and guarded estufas, to which only the elect are admitted, they still practice the strange rites of the mysterious religion of their ancestors.

A Model Breeding Ranch in Colorado.

When the fierce heat of summer instinctively forces us to seek more comfortable surroundings, thoughts of the mountains crowd upon the mind. Visions of towering peaks capped with snow, and rocky cliffs rising from the banks of cool, running streams, cause us to long for a vacation in some sequestered spot, far from the feverish activity of business.

Under such conditions it is that the parks and camping-places of Colorado are most alluring. The man or woman who has been so fortunate as to pass a summer, camping in the Rocky Mountains, needs no extended description of the glorious out-door life awaiting the sojourner in this most enticing region of the globe. The magic of the free, health-laden atmosphere, of landscapes astonishing in their magnificence and beauty, and of daily communion with stupendous proofs of nature's mightiest throes—these varied experiences turn the mind into entirely novel channels, and prepare one to appreciate life at its real value. Every person who has visited the mountains under favorable conditions will agree that the trip is one of the most interesting and enjoyable events that can be imagined Here we meet the real mountaineer—the man who will live nowhere else. For him the majestic solitudes speak a language interpreted only by the heart, and the message is always one of pleasantness and peace.

More than twenty years ago the Cary Brothers spent a summer vacation in the wilds of Northwestern Colorado. The region, as it appeared to their eyes, was almost unexplored territory. The Ute Indians had just retired under guard of United States soldiers to a reservation across the line in Utah, and there was not a fence to be seen in the journey of 300 miles westward from the summit of the Continental Divide. A primeval simplicity prevailed throughout all this vast area. It was the home of the last big game in Colorado, and thither the hunters and fishermen journeyed each year when not disturbed by rumors of Indian reprisal. The country pleased the eyes of the Cary Brothers, and they decided to begin the establishment in this distant region of a live-stock ranch.

The vision has been realized, and to-day the Cary Brothers' Ranch is one of the most complete live-stock plants in the entire West.

In order to understand the conditions of this region a retrospection is necessary.

Early writers of Rocky Mountain adventure learned from the trappers of the St. Louis fur companies of a wonderful country, now known as Routt County, Colorado, whose streams teemed with beaver, and whose valleys were the home of the bear, elk, deer, and of countless buffaloes. A beautiful body of water in this Utopia was named Trappers Lake. This lake was a favorite winter camp of the daring nomads of the mountains, whose delight it was to roam unchecked through a vast wild territory that within the last forty years has been proven to be the treasure-house of the Nation.

Another spot of Routt County, well known among the trappers as Brown's Hole, now Brown's Park, was celebrated in the writings of Francis Parkman and Washington Irving as a rendezvous of Rocky Mountain traders, who traveled up the Missouri and Platte Valleys for 1,000 miles to exchange whiskey and glass beads for furs gathered by their mountain friends, the Snake and Ute Indians. These pioneer traders told also of a river with water clear as crystal, ever renewed from eternal snows resting on the summit of a mighty mountain. The river flowed through beautiful grass-covered valleys, thence through dark cañons, and emptied into a larger stream, which was one of the main sources of the Colorado. At one spot in the valley was a series of hot springs, according to the early traders, one of the largest of which emitted at regular intervals a sound like the puffing of a steamboat. This was a summer health resort of the aborigines, and for hundreds of miles around, the war-like tribes at certain seasons declared truce and gathered in peace on the river banks, which were dotted with sweating tents and tepees of medicine-men.

The Indian health resort is now Steamboat Springs, and the great snow-covered mountain is Hahn's Peak. The river of clear water pursues its way to-day as of yore, and is the Bear or Yampa River, one of the largest streams in all the Rocky Mountains. The valleys and open plains, where roamed the buffaloes, are now occupied by herds of cattle, and Routt County has assumed a position as the leading cattle-raising county of Colorado.

Routt County, Colorado, Cowboys—Cary Brothers' Ranch.

Routt County, named in honor of the first Governor of Colorado, is in the extreme northwestern corner of the State. It lies on the western slope of the mountains, and is 125 miles long and 75 miles wide at its widest part. It comprises a domain of more than 7,000 square miles, approximating 5,000,000 acres of land, equal in area to the States of Connecticut and Delaware combined. It is a country of magnificent distances, diversified resources, and immense possibilities. Indeed, competent authorities of the industrial, agricultural, live-stock, and mining world, now declare that no similar area in the United States presents such varied resources or such an inviting field for capital. It is one of the last of the game reserves, a hunting-ground which is gradually yielding to the encroachments of the settler.

To some men is given the gift of prophecy; to others the gift not only of foreseeing the trend of events, but the business talent to prepare for it. These men are the captains of the business world, the leaders in the mighty army that is penetrating the remotest corners of the globe, and preparing the way for the light of civilization.

A visit to the Cary Ranch will convince any reasonable person that the minds that conceived this great enterprise belong to the class suggested above. The location is one of the most beautiful that ever greeted the vision of a live-stock man. The Bear River, which is here a quick-moving stream, 180 feet wide and averaging three feet deep, runs for seven miles through the ranch. Extending back from either bank are farm lands whose crops, under irrigation, are equal to any raised in the same latitude of the continent. Further back is the open-range country, rough and rolling, in places level as the river valley. The Cary Brothers arrived upon the ground in the pioneer times, when the country was open and subject to entry. They made selection of land, and laid the foundations of the ranch under the most favorable conditions, and have since acquired sixteen adjacent farms and added them to the property. Almost in the center of Routt County, five miles from the town of Hayden, the ranch comprises 30,000 acres, 3,000 of which are under cultivation. The ranch is divided into pastures and farms, and visitors are agreeably surprised at the many improvements which are to be met with in the course of a day's observations. Here are available the conveniences of the city home and the comforts of the best managed country residence. The buildings are all constructed upon modern plans, and the arrangements for taking care of the live stock are as complete as human ingenuity has devised. When it is stated that between $400,000 and $500,000 have been expended upon the enterprise, the magnitude of the undertaking may be appreciated.

The family residences are thoroughly up to date. They are supplied with elegancies seldom found outside of a well-established city. Pure running water is supplied by means of a windmill and distributed under pressure from two tanks of 550 barrels each, to the houses, barns, and sheds. The buildings are illuminated with acetylene gas, manufactured on the premises. The eating and sleeping houses for a large establishment are models, and are supplied with gas, cold storage, and equipment of first-class hotels. The residences are beautifully and tastefully furnished, and the management throughout is of the sort that leaves a permanent impression of genuine hospitality.

The Cary Ranch is really a complete settlement within itself. It has an independent telephone system, by which the manager may communicate with any of the subdivisions and with the Colorado State circuit, quickly reaching every place of prominence in the State. The ranch also maintains a dairy, equipped with the best centrifugal machinery in regular operation. The butter is of such a quality that it commands a price of ten or fifteen cents a pound above that of other butter in the market. One of the finest henneries in the State is maintained, and the barns, stables, sheds, pig styes, blacksmith shop, and accessories are evidence of a business policy looking towards results on a large and permanent scale. It is doubtful whether any other ranch of the Rocky Mountains has ever been supplied with such a complete living and working "outfit" as is to be seen at the Cary Ranch. This was possible because of abundant financial resources and a sustained enthusiasm to leave nothing un-

Headquarters Buildings, Cary Brothers' Ranch.

done that would assist in the completeness of the plant. The barn for the fine stock is 40x165 feet and 42 feet high. It is the best ventilated, lighted, and best arranged barn that money could erect and cost $16,000. The barn for the work-horses, 36x100 feet and 42 feet high; a cow barn for milk cows, and cattle sheds 1,200x22 feet, are noticeable parts of the plant. The blacksmith shop is said to be one of the best equipped of any in Colorado.

It is no exaggeration to say that here has been developed one of the most promising breeding farms in the entire country. Europe and America have literally been ransacked to contribute to this unique mountain breeding establishment. In selecting registered stock the first consideration has been one of quality, and the introduction of the best blood from year to year has produced results highly satisfactory. A leading authority of the East recently said, after visiting the Cary Ranch: "I acknowledge I was greatly surprised at the quality of the stock. I saw animals there that will compare favorably with any that are led into the most noted show-rings."

The main products of the farm are cattle, horses, and hogs, all of good quality, and many of them equal to those sent out from long-established breeding stations. The cattle-herd numbers about 6,000 head, and "Bear River" cattle almost invariably top the market. For the foundation of the herd, females were selected from the leading registered Shorthorn herds of Illinois, Iowa, and Missouri. The highest class of registered Shorthorn bulls from herds of Great Britain and America were brought to the farm, and in the course of fifteen or twenty years a type has been developed which is regarded by the management of the farm as the best type of Shorthorn yet produced in the Rocky Mountains. The aim is to raise from high-bred Shorthorn cows and registered Shorthorn bulls, cattle of the very best grade, not registered, but equal in every way to registered stock. The bull stock is for sale in carload lots to raisers who are desirous of securing that class of bulls. Some of the cows on the ranch are exceedingly fine individuals, ranging from 1,600 to 1,700 pounds. All cattle on the ranch are dehorned except the bulls. All stock is vaccinated, but on account of the extreme healthfulness of the location—at an altitude of 6,000 feet, and entirely free from diseases—dipping is not necessary. The cattle are free from flies. On account of favorable conditions and high breeding, the stock is early maturing, and responds very quickly in the feed-lots.

A Routt County, Colorado, Round-Up—Cary Brothers' Ranch.

Th horses raised on the ranch are of three grades, the standard-bred or gentleman's driving horse being at the head. The leader of the herd in this line is Lewis Wilkes, sired by Hindrie Wilkes, he by Red Wilkes, and he by George Wilkes; dam by Peter Story and Rysdick's Hambletonian. The record of Lewis Wilkes was 2:21¼, two-year old form, when he was winner of the Kentucky futurity at Lexington; in three-year-old form, 2:15¼, and trial, 2:09. Since that time he has been in the stud. His colts all show good speed. His predecessor on the farm was a son of Princeps, used for seven years; next, a son of Allerton, used for eight years; and a son of Robert McGregor, in use for three years. This breeding, according to the judgment of the Cary Brothers, together with the manner in which the horses are handled and raised, well-bred mares being used, will give to the horses reared upon this ranch the greatest endurance of any class of horses in the world.

The breeding of Oldenburg coach horses is here also in progress. The management recently purchased what they consider the best imported registered Oldenburg stallion that could be found in America. To mate this stallion twelve registered imported coach mares were purchased. Coach stallions are also being bred to standard-bred trotting mares. It is believed this breeding will produce a type of coach horses that will even excel the pure-bred—on one hand, action and speed; on the other, style and size.

The French Percheron draft horse is receiving attention at the hands of these breeders, and a large number of registered Percheron mares, weighing 1,600 to 2,000 pounds, are upon the farm.

The Berkshire hog has been selected by the Cary Brothers as their favorite hog, and they recently purchased one of the best boar pigs that could be found in Great Britain. He is a full brother to two boar pigs that took all premiums throughout England and Scotland, including the Royal Show in England. He was imported by George Vanderbilt to Asheville, North Carolina, and sent directly to Cary Brothers. Previous to this time they had used an imported pig from Vanderbilt. They have sows from the leading breeders of Missouri, Ohio, and other States.

It is easily seen from the above statements that Cary Brothers Ranch is headquarters for stock of the highest class, and that a remarkable work is in progress upon the ranch in the development of notable breeds. The comfort and sanitary condition of the stock are constantly kept in view, and all operations are conducted upon high-class business principles. The ranch is reached through Wolcott, on the Denver & Rio Grande Railway, or Rawlins, on the Union Pacific, the stage travel from Wolcott being 100 miles, and from Rawlins, 125 miles. Hayden is the nearest post office, and mail is delivered daily at the ranch. The Denver, Northwestern & Pacific Railway, now in course of construction between Denver and Salt Lake City, is surveyed for seven miles through the ranch; and the movement of settlers into Routt County gives promise of breaking all precedents during the next few years. The population of the county now numbers 6,000. It is estimated that it can easily support 75,000. The climate is about like that of Denver, which is accredited with the finest climate, all the year round, in the world.

The agricultural resources of Routt County include oats, barley, rye, wheat—all the grains except corn—the entire list of edible roots, and a variety of grasses that makes the country especially attractive to live-stock raisers. The blue stem grass is native to the country, as is wild rye and buffalo grass. Cary Brothers put up 6,000 tons of hay in a single season, and among the grasses cultivated by them are timothy, alfalfa, orchard grass, blue grass, alsace, red clover, and brome grass, one of the most prolific of the grasses. A system of irrigating ditches is in operation, with highly gratifying results.

The country is a limestone formation, the water carrying the percentage of lime that gives bone to the growing animals. The altitude gives lung power, and the necessary hill-climbing develops muscle and a good hoof, especially noticeable in the horses.

The largest coal field in the world is reported by coal experts to exist in Routt County, and the ranch of the Yampa Live Stock and Land Company—the Cary Ranch—is located in the center of this coal field. The varieties of coal embrace anthracite, bituminous, and lignite, all of best quality, and with the advent of the railway a great coal traffic will develop. The Hahn's Peak gold placers are among the oldest placer mines of Colorado, and rich mineral deposits are awaiting exploitation.

The dairy business will be one of the great interests of Routt County, and Cary Brothers are the pioneers in this as in live-stock breeding.

Steamboat Springs, the principal town of the county, with its 150 mineral springs of remarkable curative properties, is destined to be a leading health resort of the Rocky Mountains.

Recently an inquisitive explorer discovered a water power in one of the tributaries of Bear River that has a fall of 750 feet in 3,000 feet, and arrangements are being made to build an electic plant and deliver power by wire to distant mining communities in the mountains. This was one of the latent resources of Routt County, and the marvelous fertility of the soil when water is applied, promises yet greater results.

The Cary Brothers—John S., Robert J. and Samuel S., came from Louisville, Kentucky to Colorado twenty-five years ago and engaged in mining and the sale of mining machinery. The Mines and Smelter Supply Company, with headquarters in Denver, was one of the large concerns in which they were heavily interested. Notwithstanding large operations in mines and machinery, the attractions of ranch life gradually claimed their attention, and the energy of the three brothers is now in great measure devoted to the magnificent establishment on the Bear River. The visitor to this interesting region will view many striking scenes, but of one thing he may be assured—nothing he will see will impress him more permanently than the great live-stock farm of the Cary Brothers.

Revival of the Range-Cattle Industry After the Civil War.

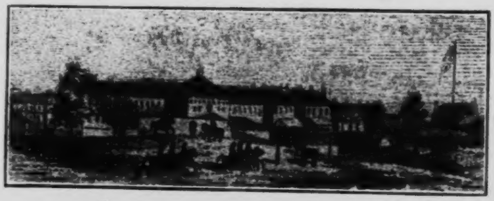
Its Rapid Advancement.—Cattle in the Central West Before the War.—Resumption of the Business in Texas in 1865.—Beef Supplies for the Army in Indian Campaigns.—Revival of Cattle-Driving to the North.—Values of Range Cattle in 1866.—Recovering Half-Wild Texas Cattle.—Troubles of Cattle-Drovers with Kansas and Missouri Desperadoes.—Operations of Swindlers Among Trail Stockmen.—First Real Live-Stock Railroad West of the Missouri River.—Results of Northern Drives in 1865-67.—Birth of Abilene as a Cattle Market and Shipping-Point.—Beginning of the Range Cattle Business in the Central Plains Region.—Great Demand for Cheap Range Cattle.—Forcing the Reservation System Upon the Indians.—Gathering Cattle for New Ranges.—Number of Texas Cattle Trailed North in the Late Sixties.—Prejudice Against Texas Beef.—Losses on Eastern Shipments.—Beef for Reservation Indians.—Growth of the Cattle Industry.—Wintering Texas Cattle in Kansas.—Great Pastures of Central Texas.—Stock-Raising Farmers of Texas.—Friendliness of Civilized Indians of the Indian Territory.—Number of Texas Cattle and Size of Herds in 1870.—General Character of Old Texas Range Stock.—The Disreputable Texas Long-Horn Bull.

Concurrent with the rapid peopling of the Great West, and with its tracking by railroads, in the period after the close of the war between the States, the range-cattle industry was extended with a celerity which equalled that of anything else that was going on in the new country, and which in some respects was surpassing. It soon spread farther toward central and western Texas, and invaded many parts of the vast empire of territory that constitutes the plateau region. As this great modern westward movement advanced the range cattlemen kept in the lead of the line of settlements and ahead of most of the railroads. Within twenty years their herds were grazing in almost every part of the immense semi-arid country that stretches from southwestern Texas to the northern boundary of Montana. In every district in which there were available wild pasture-lands the cowboy was on duty. No other great industry directly identified with the soil ever had so wonderful an expansion in so short a period of time.

Before the Civil War cattle-raising on the Texas plan, as well as sheep-raising as it was practiced in that State and in New Mexico, practically were unknown in all other parts of the country. The civilized Indians of the Indian Territory were stock-raisers, but only for their own needs, for which the "pasture-lot" system was sufficient. The settlers in eastern Kansas and in southeastern Nebraska had a good many cattle, but a relatively less number of sheep. Those upon what then was the frontier pastured their stock on the open prairie, and some of them looked after their cattle in a sort of cowboy fashion. But this was not the genuine article—not the real range-cattle business. It was, in the main, mere local production for local consumption, and did not at any time in that period take on especially noteworthy proportions. The principal business in the settled parts of Kansas and Nebraska in that time was political, and, judging from what history has told us of that stormy era, the people had little leisure for anything outside of armed politics.

In before-the-war times, cattle, and sheep, too, had been driven not only across the central plains region, but over the mountains and on to California. During the '50's of the nineteenth century there were men who, borrowing the idea from the Texans, drove herds of Missouri and eastern Kansas cattle and flocks of Missouri sheep to the California mining region, and made money by their ventures. The Oregon emigrants, as we have already told, took live stock with them on their overland journey in the earlier '40's of the past century, and a few years later the harried Mormons, upon their long pilgrimage to what they fondly believed was to be a secure land of promise, took with them "much cattle."

When gold had been "discovered" in the Pike's Peak country late in the '50's, after many years of knowledge of its existence there, the needs of the communities that sprang up along Clear Creek and near by, called for a supply of beef cattle, and some droves of these were driven across the plains to meet the requirements before civil war had seemed more than a possibility. Among those who took cattle there at that time was Mr. William H. H. Larimer, now a live-stock commission man at Kansas City. In 1859, when he was not old enough to vote lawfully, he bought up a herd of about 400 head in eastern Kansas, and without serious mishap drove them to the scrawny collection of log huts which then ambitiously was calling itself "Denver City." Many of these were sold after their arrival and the others were put on pasture near the ragged hamlet to become the foundation of "home production" of beef cattle. A large number of cattle had been taken across the plains as supplies for his army by General Albert Sidney Johnston in 1857 in his campaign against the Mormons in Utah, and additional herds were driven there for the use of the army before that rather amusing military undertaking came to an end.



Fort Leavenworth, Kansas, in 1859.
(*From Barber's "Western States and Territories."*)

But all of these enterprises still left the real range cattle business in the hands of the Texans, the people who already had developed it and made it a great possibility. The oncoming of the war stopped them just when they had become well started, but through the interval of tragic strife they had kept in mind the immense natural resources of their magnificent State, chief among which at that time loomed its invitations to the energies and capabilities of the live stock man.

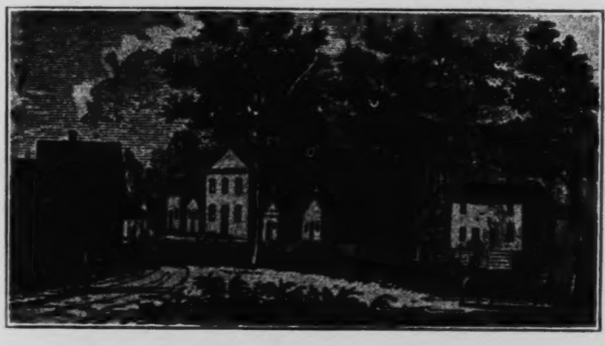
After the collapse of the Confederacy the Texas stockmen turned their faces toward the future, and resolutely set out to rehabilitate their broken fortunes; and in this they were helped indirectly by the race of which some tribes so long had been their inveterate foes. The general uprising of the Indians of the central and northern plains region, for which they had been preparing for a year or more, occurred in the spring of 1865; and before midsummer of that year the Kansas and Nebraska frontier, and the stage and emigrant routes across the plains, were swept by fire and death. That outbreak, which was the last one that generally affected the central plains region, but which was not finally crushed out until after several years of chasing and fighting, was of such magnitude that a large military force had to be put in the field to deal with it; about one-half of the troops consisting of volunteer soldiers who had been hurried from the armies in the East where fighting their brothers of the South had come to an end. Beef supplies for these forces, of which in one period there were three separate small armies, largely were drawn from Texas, and, while most of the actual profits went to middlemen, this emergency market was of considerable importance to Texas cattlemen under the circumstances and conditions by which they found themselves surrounded at the time when they were struggling to get upon their feet again.

War-time prices but little modified, of almost every commodity, were continued in the northern States for a few years after the war, and these conditions as early as the summer and autumn of 1865 induced some Texas drovers, and others from the North, to buy cattle on the Texas ranges and drive them to northern markets; or in other words, to revive the movement in Texas cattle in that direction that had been inaugurated in 1856 and interrupted by the outbreak of the Civil War. In the spring of 1866 a very large number was collected for this purpose and taken north in the summer of the year. It was estimated at that time that a total of about a quarter of a million of head bound for the North crossed the Red River in the summer; many of them belonging to and in charge of range cattlemen themselves, who had joined in the movement and were driving their own herds. Of a transaction connected with this activity McCoy, in his "Sketches of the Cattle Trade of the West and Southwest" (1874), says:

"To give an idea of the value of cattle in

Texas at this time, we will here state that an intimate friend, then in the trade, went to a herd of 3,500 head of beeves and purchased 600 head of his choice at $6.00 per head; then for the next 600 head, his choice, he paid $3.00 per head; making his purchase of 1,200 head cost an average $4.50 per head, or something near forty cents per hundred pounds gross weight. At that price beef could hardly be called an expensive luxury, or its production a very profitable business."

But it is to be remembered that Texas cattle in that period, considered as a mass, still were of inferior quality, even in comparison with the common run of their kindred anywhere east of the Mississippi River. Furthermore, these selected animals could not have been in condition to grade above medium Texas beef stock, for in that year (1866) choice Texas beef steers—the grade that warranted transportation by steamship—sold on the range for the New Orleans market for a price as high in some instances as $20.00 per head; the ruling price on the range for this grade varying from $16.00 to $18.00 per head.



View in Lecompton, Kansas, in 1859.
(From Barber's "Western States and Territories.")
The larger building in the central part of the view is the Masonic Hall, in the second story of which the noted "Lecompton Constitution" was framed.

The general revival of live-stock operations in Texas, and this northward movement in particular, very soon had caused attention to be directed toward the great numbers of half-wild cattle that were roaming upon the open prairie beyond the border line of the settled parts of the State. The foundation of these herds had consisted of stock that, as previously related, had been either abandoned by their owners or had wandered away unheeded during the times of great depression in the Civil War period. Many of the thousands of these were unbranded and unmarked, and had, of course, no known owner; all of their natural increase being in this condition. Moreover, even those that bore marks or brands would have been difficult of reclamation by their former owners after having been abandoned by them for several years. Therefore, many Texas cattlemen, and many others who dated the beginnings of their careers as cattlemen from that time and these circumstances, fared forth with helpers to round up and take to themselves this vagabond stock. A good hustler well equipped for the work and favored with fair conditions required but a short time to put himself in possession of enough of these wanderers to give him the rank of "a rising cowman"; and there were many who first attained that rank, or else the basis for it, in this way. But some acquired only unmarked graves in the prairie, or met a fate that left their bones to bleach on the surface of the ground; for the Comanches would get after the more reckless of these cattle-hunters and frequently wiped out an entire party.

These previously vagrant cattle were included in considerable number among the stock taken north within the first few years of the new movement in that direction. While their associates in these expeditions were none too tractable, the half-wild were, of course, much more restive, and also easier to be alarmed; and an attempt to drive a herd of them by themselves would have caused more trouble than they were worth. As it was, they usually were among the ringleaders in starting and in keeping up the crazy stampedes that often made trouble plenty on the trails, many of which, in their absence, probably would not have occurred.

Some of the drovers of that time who had St. Louis for their objective point encountered in southeastern Kansas and in southwestern Mis souri trouble far more serious than any given them on the trails by such of their stock as retained memories of an absolutely free life on the unbounded prairies. Most alarming accounts of the virulence of "Spanish fever" in cattle, or "Texas fever," as it was more commonly called, and of its dangers to northern cattle, had become rather general in several of the northern States having large interests in such live stock; and the fear of it was very deeply grounded in eastern Kansas, in Missouri and Illinois. The disease really being a most serious matter from any point of view, the honest and much excited apprehensions of some of the people of southeastern Kansas and of southwestern Missouri of its introduction among their cattle by infected herds from Texas, prompted them to resist, with force upon occasion for it, the passage of any Texas herds through their parts of the country. These circumstances also opened opportunities for many lawless men pretending to be alarmed cattle-owning farmers, to plunder the drovers of their stock, or to blackmail them of large sums of money for the privilege of passing on. But usually these men would stop the herds, start a fracas with the drovers, and in the mêlée the cattle would be stampeded and scattered, to be collected afterward by the land-pirates and taken to market. The cattlemen occasionally were subjected to severe personal violence, and some of them were killed outright in affrays with such desperadoes; but not always without having laid out cold a few of their assailants.

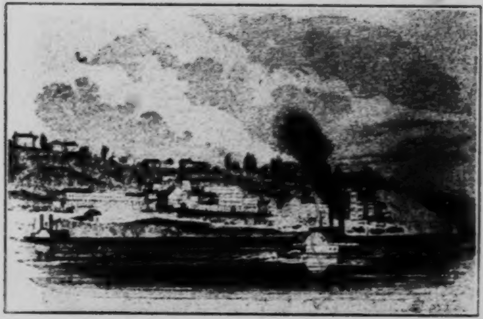
For several years after the close of the Civil War the West was over-run by hordes of the most infamous all-around scoundrels that ever encumbered the earth. They were the scum and the dregs of the four years of turmoil. Many of them had served as soldiers on one side or the other, and had by their deeds disgraced the uniforms they wore. No doubt it was from this class of men from which came the desperadoes who robbed, maltreated, and sometimes murdered, southern drovers in 1866-67; for the real citizens of the parts of the country referred to were neither thieves nor murderers. All that they, in their great apprehension, asked of the cattlemen was that they keep away with their stock and not endanger the local cattle of the country; and, as we have said, they employed force at times when it was made necessary by

View in Nebraska City, Nebraska, about 1859.
(*From Majors' "Seventy Years on the Frontier."*)

drovers who persisted in trying to go ahead.

Of these troubles McCoy, who sometimes broke out strenuously in the superlative degree, in his "Sketches," says in part:

" * * * We can readily believe that the bright visions of great profits and sudden wealth that had shimmered before the imagination of the drover, leading him on as the subtle mirage of the desert does the famishing traveler—nerving him to greater hardships, and buoying him up in many a wild, stormy night, whilst he kept silent vigil over his herd—were shocked, if not blasted, by the unexpected reception given him in Southern Kansas and Missouri by a determined, organized, armed mob, more lawless, insolent, and imperious than a band of wild savages. * * * Could the prairies of Southeast Kansas and Southwest Missouri talk, they could tell many a thrilling, blood-curdling story of carnage, wrong, outrage, robbery, and revenge, not excelled in the history of any banditti, or the annals of the most bloody savages."



An Early View of Kansas City.
(From Barber's "Western States and Territories.")

The southwestern Missouri roads leading to Sedalia were the scenes of the worst of the work of these outlaws; Sedalia then being the nearest point from which rail shipments could be made to St. Louis. When outright murder was not resorted to as the readiest means of getting possession of a herd of cattle, drovers were flogged until they had promised to abandon their stock, mount their horses, and get out of the country as quick as they could. A favorite scheme of the milder-mannered of these scoundrels to plunder the cattlemen was that of stampeding a herd at night. This was easily done, and having been done the rogues next morning would collect as many of the scattered cattle as they could, secrete them in an out-of-the-way place—much of the country being hilly and timbered—and then hunt up the owner and offer to help him, for an acceptable money consideration per head, in recovering his lost property. If the drover agreed to pay a price high enough to satisfy the pirates, they next day would return with many, if not all, of the missing cattle; but if not, the hold-ups would keep them, and later take them to market and pocket the entire proceeds.

However, these conditions did not last a great while. They soon became generally known among Texas cattlemen, and even in 1867 some of the drovers had avoided the dangerous districts by going around to the east or to the west. Upon reaching the northeastern part of the Indian Territory, those who took the eastward route drove in that direction through the country adjacent to the Missouri-Arkansas boundary until beyond the eastern border of the infested sections. They then laid their course toward St. Louis or to some shipping point on the Missouri Pacific Railroad east of Sedalia. A large part of this round-about route was through a rough and hilly wooded country, and therefore when the cattle reached the end of their long journey they were run down and in bad condition; but most of them, after having shown themselves free of any symptoms of Texas fever, finally reached Illinois farms where they were put on corn feed and so made ready for the beef market. The drovers who turned west followed the southern boundary of Kansas 150 miles or so, and then proceeded northward and northeastward, in front of the border settlements of that State until far enough to turn eastward and go directly to St. Joseph, Missouri, or to other places near there, and even into Iowa, where many Texas cattle were sold in that year to farmers who converted their abundant corn into beef. Most of the hostile Indians had been driven farther west before that time, and therefore, while there still was some danger to drovers from small bands of them on dashing raids, they did not interpose any very serious obstacles to these movements of cattle along the frontier of the Kansas settlements. Furthermore, this stock, having passed through a good grass country, reached the Missouri River in much better condition than that in which the droves that were taken around through central-southern Missouri to St. Louis were found to be upon their arrival there.

But other drovers from Texas in that year, rather than to risk either of these hitherto untried round-about routes to a market, took their chances with the white hostiles of southeastern Kansas and of southwestern Missouri by going directly into the latter's country, as had been done the previous year; and, while some of these made their way unmolested, others encountered difficulties, losses, and bloody affrays, such as those that have already have been mentioned.

Beside those that have been set down above, there was another source of serious losses to the Texas cattle-drovers of that period, if even the half be true of the stories that have been told about the operations of swindlers and confidence men, who intercepted them as they drew near to the markets with their cattle; and furthermore, the drovers appear in the light of these tales to have been uncommonly credulous and confiding for men engaged in a business requiring sharp wits and plenty of them. It has been recorded in divers and sundry published historical accounts of cattle affairs in that time that "many" of these cattlemen exchanged their droves for worthless checks, bogus drafts, or other bottomless considerations from smooth and winsome strangers, who plausibly explained their lack of cash by referring to the danger of carrying large sums of money with them at a time when any and every honest man was liable to be held up and robbed by desperadoes at the next turn of the road; and that before the victims could learn of the true character of the alleged considerations they had received and set out to obtain redress, their cattle and the strangers, too, were far away and probably already had gone through a market. However, the reader is at liberty largely to discount, as obviously should be done, the truth of stories saying that "many" of these cattlemen were plundered in this fashion, and so retain faith in the business sense of the average pioneer of the old cattle trails out of Texas to the North.

But nearly all of these troubles came to an end with the close of the year 1867 in the autumn of which a market- and shipping-point

Southern Cattlemen in the Hands of Missouri Land Pirates.
(*From McCoy's "Sketches of the Cattle Trade."*)
The victim lashed to the tree is Mr. James M. Daugherty, of Abilene, Texas.

was established well out on the old Kansas Pacific Railroad (now a part of the Union Pacific system), which by that time had been completed and was in operation to Salina, Kansas; and which also had induced a large inflow of immigration in advance of its actual construction. The old Kansas Pacific long was reviled and ridiculed, but nevertheless it had the distinction of being the first real live-stock railroad west of the Missouri River.

During the first two or three years after the Civil War the northern drives of cattle from Texas were not upon the whole profitable to the drovers. The stock that had been taken into Iowa and elsewhere east and north of the Missouri River and sold to feeders had brought fair prices upon the average, but it is probable that if one man had owned and directed the entire movement during those years he would have found himself poorer than when he began. By 1867 the supply of Texas cattle had increased wonderfully; again, everybody there seemed to have cattle to sell, and prices were going through all sorts of contortions in their efforts to meet the views of that odious person, "the conservative buyer."

So it came about that the "Texas fever" scare in the North, the inferior character of much of the stock—that often was made to appear worse than really it was by the hardships of the long drives, the expenses of the trails, the losses unavoidably incurred on the way, combined to keep the general balance of the whole proposition standing upon the wrong side of the ledger.

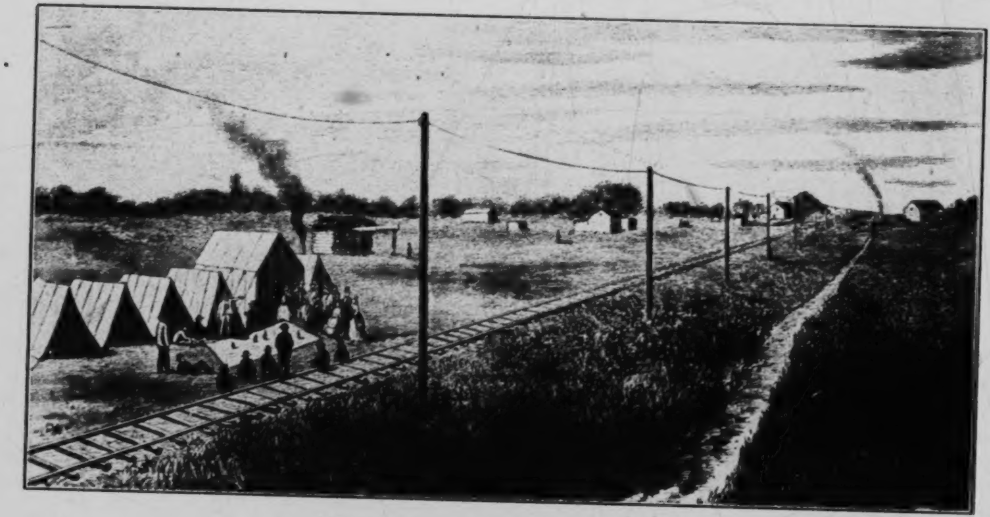
In that brief period of unfriendly conditions some of the drovers, not satisfied with the prices offered at intermediate markets, went with their cattle by rail to Chicago, where, as a general thing, they had either to sell at net figures but little, if any, better, or to slaughter and pack on their own account; the last-named operation usually turning out to be the worst, as well as the final, resort.

In the autumn of 1867 the market and shipping facilities, heretofore referred to, were established at Abilene, Kansas. The very name of "Abilene" will revive stirring memories in the minds of many of the old-time cattlemen who are still outside the silent corral, the gates of which swing not outward. It will bring back to them "the good old times" that were so trying and toguh and wild-catty generally. Some people in Texas in a later period gave the same name to a railroad cowtown in their State. But at no time in its history was their Abilene any more to be compared with the "real thing" than is the light of a "tallow dip" to be likened to the glare of the noontime sun upon a clear day. The Kansas Abilene was the first wild, woolly, and otherwise thoroughgoing "cowtown" in the world, the truly meteoric career of which receives some further consideration in a succeeding part of this volume. Like many a famous personage, its beginning was humble and gave little promise of a brilliant career, for there were many other hamlets just like it along the shabby line of the old Kansas Pacific. In the summer of 1867 when construction of the accommodations for the southern cattle-drovers was begun the place contained about a dozen small buildings, most of which were of logs, and its business establishments consisted of two little "general stores" and a saloon. Texas drovers northward-bound were notified that Abilene had been made a stock-market which they could reach without molestation from either hostile fever-fearing citizens or the more dangerous land-pirates, and where they could sell their cattle or forward them eastward by rail, as they preferred. But the place was not ready for business until the beginning of autumn, when the bulk of the season's operations was over, and therefore Abilene had no "show" to exhibit its resources as a place of commerce and wickedness in that year; but it made up for this good and plenty afterward. However, about 35,000 head of Texas cattle were driven to Abilene and disposed of there in the autumn of 1867; the first shipment, one of twenty carloads consigned to Chicago, having been made on September 5th, the total number of carloads in the last four months of that year having been nearly 1,000.

Abilene really marked an epoch in the range-cattle business—a turning-point from old and uncertain methods to ways and means that were more definite and expeditious, even if not always more profitable. Although a mere hamlet in the summer of 1867, it was the seat of justice for Dickinson County, the eastern part of which contained most of the population, which was agricultural; the central and western parts being as yet thinly settled. At the start these farmer settlers were apprehensive of Texas fever coming with the southern cattle, and therefore were disposed to make trouble, but their fears soon were quieted, and Abilene was permitted to rise in business, wickedness, and cowtown fireworks generally to heights that speedily won for the place a national reputation.

In the meantime the beginning of raising cattle on the open range in the Texas fashion had been made upon the eastern border of the plains in Kansas and in southern Nebraska and also in Colorado in a belt along the eastern base of the Rocky Mountains, and in southeastern Wyoming, into which the track of the Union Pacific Railway had penetrated. The stock for these ventures had been drawn principally from the Missouri River borders, although a considerable number of Texas cattle were included in the herds. Moreover, some Texans had moved north with their outfits into Kansas and Wyoming. They did so partly because of the rail transportation which the northern country was about ready to afford for reaching the more important live-stock markets, and partly because they had thought they were becoming "crowded" on their old ranges. The Texas open-range cattleman of that period had peculiar ideas as to what constituted a crowd. Young people who are in an abnormal state of mental exaltation usually consider that any number greater than two form such an assemblage, but the old-time Texas stockman was even more exacting, as he held that if the outfit of another of his kind were anywhere at any time within sight he had good reason for complaining of the crowded condition of the country.

In 1868 there arose a great demand for cheap cattle to put on the range in the parts of the country referred to above and also in more distant sections in the West, where immediate danger from Indians had been much reduced, if not entirely removed. This demand was due to preparations for the great extension of the range-cattle business that went on in the South as well as in the North through after-years, like the advance of a victorious invading army, until, by the middle of the second decade thereafter, there were no more wild pasture-lands left in the Great West for the indomitable range stockmen to conquer.



Abilene, Kansas, late in the Summer of 1867.
(From McCoy's "Sketches of the Cattle Trade.")

After the close of the Civil War, when the immense tide of immigration had begun its remarkable flow over the West, the Federal Government determined to force the reservation system upon all of the western Indians that still were leading a roaming life as quickly as it could be done. Much longer time was required to accomplish this work than had been anticipated, but by 1868 many of the hostile smaller bands of Indians in the central-plains region that had been on the war-trail since the spring of 1865, had been hunted down by the army and taught the uselessness of further war on their part; and therefore at that time the more serious of the remaining troubles with plains Indians were being made by the Sioux tribes of Dakota and some of their allies, and by the Comanches and some others in the South. As late as the spring of 1868 a large party of Sioux raided the northwestern line of the frontier settlements of Kansas, and in September of that year General George A. Forsyth and his fifty-two fellow-heroes had their famous battle with nearly 1,000 Cheyennes, and Ogalalla and Brule Sioux, on the Arickaree Fork of the Republican River, a few miles within the northeastern part of Colorado.

View in Cheyenne, Wyoming, in 1868.
(From Volume I., "Collections of the Wyoming Historical Society.")

Nevertheless, many men were preparing in 1868 to start cattle ranches in front of the advancing line of the settlements in Kansas and in Nebraska, and also in Colorado and in southern Wyoming; while others were arranging to go into parts of the interior of Wyoming and of Montana that were comparatively safe from further depredations by Indians. It was to these extensive preparations for future operations on the range that the great demand in 1868 for cheap range cattle was due.

But it may be remarked here, in passing, that some of these men went too far in their reliance upon their own judgment and on their courage and defensive resources in contact with hostile Indians; for, like some ships that have sailed out into the ocean, neither they nor any of their cattle ever came back.

By the close of the spring of 1868, the demand for stock for the new range enterprises had become so hungry that it was grasping at almost everything that looked like a cow, and threatened to cause a serious drain of stock from the Missouri River borders. The Texans had not yet put in their appearance with their horny herds, and, as it was not known how many they might drive that year, some of the trash that had been gathered up in western Missouri and eastern Kansas and counted as cattle really needed on their travels a sort of passport certifying that they actually were the kind of creatures they purported to be.

Early in the summer buyers flocked to Abilene, and the men from Texas met them there with thousands of cattle. In that year (1868) about 75,000 head from Texas were marketed at Abilene, most of them going to the new ranges. But this total did not represent all of the Texas cattle driven into Kansas in that year, for many were sold elsewhere, and furthermore it was not uncommon for buyers to go south to meet the oncoming cattlemen and there buy entire droves, which the sellers, diverging from the trail to Abilene, often would deliver the stock on or near the purchasers' ranges, sometimes going as far as Colorado and southern Wyoming to do this.

Much of the Texas cattle taken into Kansas at that time was rough and fit only for range stock, though none too good for that; and many cows and youngsters were included in the droves. While the demand for range-stock was great, the magnitude of the supply coming from Texas kept prices from going to extravagant figures. Yet they afforded a fair profit on the ventures, and induced a still heavier northward movement from Texas the next year when, it was estimated, more than 200,000 head of Texas cattle were driven into Kansas; the Abilene total alone aggregating nearly 150,000. As in the preceding year, ruling prices in Kansas in 1869, especially those for range-stock, were fairly profitable to the sellers and satisfactory to the buyers.

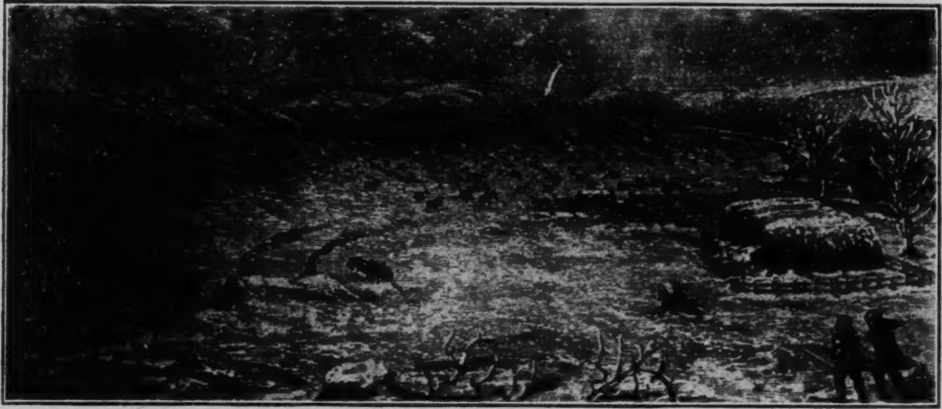
In that period the West was seething with excitement, enthusiasm, and beliefs that anything and everything were possible. Settlers were pouring into it, and there was a tremendous activity in every avenue of human enterprise. The completion of the one-time "impossible" trans-continental railway was accomplished in 1869, and several others already had been projected for early building. Many local railroads that eventually grew into great "systems" were being built, and immense areas of country that yesterday were parts of the wilderness, to-day were being divided and organized into counties, with county-seat "cities" of unbounded ambitions.

For some years after the close of the Civil War a deep-seated prejudice against Texas beef persisted in most of the Eastern markets in the North. This was partly due to stories of the effects of Texas fever among cattle and partly to undefined beliefs that the meat was otherwise unwholesome. In some of the eastern parts of the country the prejudice was so great that "Texas beef" was almost unsalable at any price, while that of local origin ranged high. Indeed, many people were afraid to eat Texas beef, no matter how good it might appear to be, and considered its presence on the blocks of their butchers an offense that should be forbidden by law. Of course this kept down the prices of Texas beef grades taken north in the period with which we are here dealing. It was said that the second shipment of beef cattle made from Abilene in 1867, consisting of a round lot of about 900 head that had been bought there at something like $20.00 per head, finding no market at Chicago, was forwarded to Albany, New York, where it was sold for $300 less than the freight charges alone; leaving the original cost of about $17,500 for the lot a dead loss, and requiring the shipper to throw $300 more into the hole. The Eastern aversion to Texas beef gradually disappeared, but while it lasted heavy losses on shipments of Texas stock were not uncommon, though not often to so great an extent as that of having the proceeds prove insufficient to balance the mere cost of rail transportation to the markets; although some such losses occurred on good grades bought at Abilene in 1868 at from $2.50 to $2.75 per hundred weight.

Beef supplies for the reservation Indians who were so considerately being fed and clothed by the Government largely were drawn from the stocks of Texas cattle, and so made an important feature of the available market for the beef grades through the intermediate contractors, nearly all of whom were Northern men who bought from Texas drovers. While the quality of beef-stock for the reservation Indians was not required to be so high as that intended to be supplied to the soldiers engaged in the Indian campaigns, the Government specified and paid for a good grade of beef cattle. Where the Indian Agent was reasonably honest the contractor could not "work in" stock that was much below the specifications; but it often happened that through collusion with the Agent thin cows and rough stock-cattle costing from $8.00 to $10.00 a head were put in and the price of good beef steers collected. The Texans had all kinds of cattle to sell, and it was no concern of theirs as to whom they sold or as to the disposition the buyer made of them.

Making due allowance for the circumstances and conditions of the times, the range-cattle industry had a remarkably rapid extension during the closing years of the '60's of the nineteenth century, and especially so in central Kansas, in the central parts of southern Nebraska, and in southern Wyoming; a large part of the cattle involved being of Texan antecedents. The men who went into the business in these parts of Kansas and Nebraska were on land nearly every section of which now is under cultivation, and from which they were crowded within a few years by people who took it for farms. While these stockmen then had to shift themselves farther to the west, the buffalos, as we have already seen, continued to occupy, but in diminishing number, a belt of country covering western Kansas and eastern Colorado, and connecting their ranges in Texas with those in the upper Missouri River region, for some years afterward.

In that opening period many Texas drovers began wintering the better grades of their cattle in Kansas with provisions for a good supply of feed, and finishing them on the native grasses there during the ensuing spring and early part of the summer, when they would be forwarded to market; and some of the Kansas men turned to buying at bargain prices in the autumn thin and therefore unmarketable beef-stock that lingered with belated drovers for the same purposes. These cattle usually were put on range, but with a reserve supply of prairie hay in hand to the amount of upward of a half-ton to each head. The abundant wild grasses of the river valleys of central Kansas made hay that was very nutritious and for which Texas cattle quickly acquired a great fondness. Some of these cattlemen made their own hay, but most of them bought it from or contracted for their supply with men who had taken up hay-making for these purposes as a business. If the winter happened to be a fairly open one the cattle, in the absence of much snow, could keep themselves in good condition on the pastures, and the hay was used further to round them out. Some herds were taken into the eastern parts of Kansas and turned into the large cornfields of that section after the corn had been husked, and in the spring put on range-grass. Many thousands of cattle thus were held over, and the business, under provident management, as a rule proved profitable.



Scene on a Central Kansas Wintering Range at the Close of the Sixties.
(From McCoy's "Sketches of the Cattle Trade.")

The northern trail movement during these few years had given a great impetus to cattle-raising in Texas, and while the stockmen of that State had continued supplying the New Orleans and other Southern markets with beef cattle, and also had been taking some stock north in other directions—using Mississippi River steamboats frequently for this purpose—the attention of a large number of them was centered upon the outlet and the business opportunities that had been opened to them in Kansas and in other parts of the Northern plains country. Texas was receiving an increasing flow of immigration, and the people it brought in were, in the main, farmers who took up small holdings in what had been the principal cattle-raising sections of the State; thus forcing the cattlemen to move on to newer fields. In earlier times it had the rather common opinion among the mass of the Texas people that the higher central and western parts of the State were not very well adapted to cattle-raising, nor to much of anything else. The evil associations and unhappy memories of the long warfare with its Indian inhabitants doubtless had had an influence in prejudicing this earlier public opinion of that region, but investigation made after these new people had begun coming in and displacing the open-country stockmen by converting the old-time ranges into farms had shown that most of it was good cattle country; though no one then anticipated that as a whole it was capable of any such development as it underwent in later years. A stockman who traveled through San Saba, Tom Green, and Taylor Counties in the summer of 1867, when that district had but a handful of people in it, reported that the grass was from one to three feet high everywhere, and that in some parts it was as high as a cow's back, not only on the bottomlands, but also in places on the drier uplands; and that it had plenty of water, and was capable of supporting from 250 to 300 head of cattle to the square mile. Many other parts of that region, while not of such abounding resourcefulness as this, were found to be fair lands of promise, and therefore, with what seemed an almost unlimited field of practically inexhaustible resources before them for future operations, the Texas range-cattlemen were not cast down by the inroads of farmer-settlers upon the old scenes of their labors.

Most of us are in the habit of associating all Texas cattle with exclusively cattle ranches and ranges in that State, and with cowboys and branding irons, while we should remember that even in the period before the Civil War, when range herding first had become a business separate from that of farming proper, farmers there as they do and have done everywhere else, raised cattle in numbers that aggregated large. Cattle and cotton, especially since the Civil War, have been the mainstays of Texan prosperity, but Texas farmers as a class, and as they always have been, and more than those of any other State, are stock-raisers also; and their annual contributions to the Texas output of beef cattle made, in past times as at present, an important part of the grand total. But the cattle of the northern drives almost entirely were from the ranges, only a small part of the great host being what we may call Texas farm-cattle; the latter usually being, from the previous conditions of their lives, of a better average quality than the others, and also more tractable.

The trails of the cattle-drives from Texas to the North, both before the Civil War and during the period dealt with here, led into and across the Indian Territory country; that is to say, the country of the present-time Indian Territory as distinguished from Oklahoma. At first thought it might appear to the reader that this region must have been a danger-land to the courageous Texans, who had set out to find a market for their herds of cattle which usually represented the greater part, and in many cases all, of their worldly possessions. But this was not so. The dominating Indian influence in the eastern part of the Territory in those times, as it is now, was that of the old tribes, the Cherokees, Choctaws, Chickasaws, and several others, which had been there for many years; and it should be remembered that, with some comparatively insignificant exceptions, these early trail-cattlemen encountered no trouble for which the Indian people of the Territory were responsible. On the other hand, the drovers were indebted to them for many acts of kindness and good will; and in most of the recorded instances of minor difficulties it is not clear that the cattlemen themselves were blameless. The most serious difficulties that the drovers encountered in these drives were with people of their own race—those with the hostile whites of southeastern Kansas and southwestern Missouri, as already related. It happened more than once in 1866 and 1867 when these people were endangering the lives and property of Texas drovers that the latter turned back into the Indian Terriitory to find refuge and safety there.

Some thirty years ago men who "figure out" all sorts of propositions, discovered in delving in census reports that to every hundred persons in the United States there was required eighty head of cattle, and that this requirement had not varied one per cent since 1840. In 1870 Texas had far more than its share, for there were in that State in that year about 900 cattle to each hundred of population, or about nine to every man, woman, and child.

By that time there were many Texas cattlemen each of whom owned from 20,000 to 40,000 head of cattle and some whose holdings were still larger. Including horses, sheep, and goats, their herds and droves and flocks surpassed those of the patriarch, Job, the great stockman of the Land of Uz; and even at that time some of the ranges that were under individual control included many more than a thousand hills—or swells in the prairie. But on the range the cash value of cattle was not so impressive as their number; a buyer might take an entire herd, good, poor, and between, and all ages, as they came, for a price somewhere near $4.00 per head.

Compared with Eastern farm cattle, the Texas range stock of that period seemed to stand off as a well-marked distinctive breed. Indeed, in some of their characteristics the differences leaned toward such as usually are considered in defining a species; this especially being the case in the steers. The bodies had an emphasized lankiness and were raised high from the ground by the long legs; the head was elongated, and in many of the animals the long, narrow face had a sinister and sullen expression. The wide-spreading curved horns, unlike those of most very long-horned varieties of cattle, generally had a horizontal trend, and not uncommonly their spread from tip to tip was as much as five feet; and in some rather exceptional cases reached six.

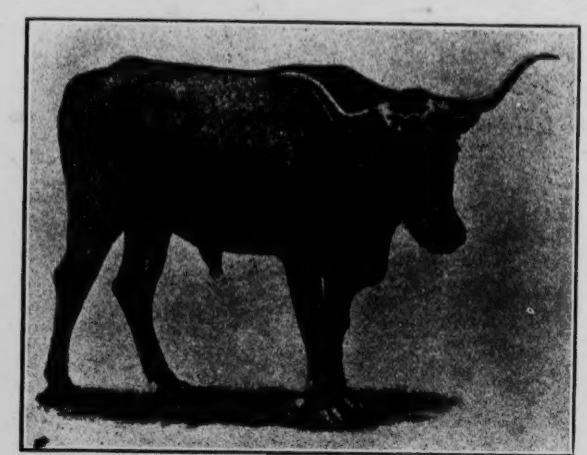
These cattle had become known by different names in different parts of Texas, being called "Dogies" in the eastern section of the State, "Sea-lions" along the gulf coast, and "Long-horns" elsewhere; but "Texas steer" was a generic term that "went" everywhere and that everybody understood. This stock, beside being picturesque, had at least one conspicuous merit; for it was well adapted to the period in which cattle were put on the trail in Texas and driven day after day over the long distances to Northern markets and into the Northern plains, as its powers of endurance were remarkable.

Even if there had been no other objections to this stock—and there were many others—the Long-horns alone would have displaced these animals as market cattle. From the beginning of hauling them on railroads their horns had been found much in the way. A ride on a railroad made a great strain on their nervous system, and an excited steer trying to plunge around in a crowded stock-car was pretty sure to damage some of his companions in misery. Furthermore, where there was so much spreading horn to be accommodated, not so much live beef could be put in a car.

A Bunch of Modern Mexican Cattle.
(From "The Cattle Industry of Texas.")

Although a beginning toward improving this stock by the introduction of some of the high-bred varieties was made within six or eight years after the Civil War, and was continued until the purpose had been accomplished, no great change in the general character of the mass of Texas range-cattle became apparent until late in the '80's.

Much of the stock with which the cattle-raising industry was established elsewhere in the range country after the Civil War having been drawn from the range-herds of Texas, the characteristics of the Texas cattle prevailed in large degree, if they did not predominate, in the range-herds almost everywhere for about twenty years. Most of the disposition among these Northern cattle to stampede, sometimes without apparent cause or with only the most trifling, generally was due to traits inherited from the Texans. This disposition often was manifested by cattle that had lost most of the outward semblance of their long-horned relatives through mixture with eastern stock, but as the Texan element further was reduced by out-breeding, the proneness to become panic-stricken was almost correspondingly eliminated.



An Old-Time Texas Steer.
(*From "The Cattle Industry of Texas."*

Many Western men regarded these Texas cattle as being far more dangerous to a man on foot than an equal number of buffalos. Colonel R. I. Dodge, writing in 1876, says ("Plains of the Great West"):

"The domestic cattle of Texas, miscalled tame, are fifty times more dangerous to footmen than the fiercest buffalo. The latter is the most unwieldly, sluggish, and stupid of all plains animals. Endowed with the smallest possible amount of instinct, the little he has seems adapted rather for getting him into difficulties than out of them. * * * A footman is never safe when a herd [of Texas cattle] is in his vicinity; and every sportsman who has hunted quail in Texas will have experienced the uneasiness natural to any man around whom a crowd of long-horned beasts are pawing the earth and tossing their heads in anger at his appearance."

The average Texas Long-horn bull was about as mean a creature as ever went on four legs, and rivalled in this respect some of the worst of his contemporaries that went on two; and the longer he lived the meaner he became, until finally he made himself so intolerable that his hide, the only part of him of any value whatever in his old age, would be stripped off and sent to the tanner, if the circumstances made its salvage worth while. While in an ordinary frame of mind he was always much of a blusterer, like many a "bad man" of his day and generation, and went swaggering around and threatening destruction to everything that came near him, his temper became ungovernable when he was aroused, and made him a very dangerous animal.

Their frequent fights between each other usually were far more serious affairs than the combats between buffalo bulls. The short, in-curved horns of the latter were not very good weapons, and the shaggy masses of hair on the forequarters afforded some protection. But the longer, less curved, and keener horns of the Texans could be made to do deadly work.

As fighters of each other, the Texas bulls were much like the bulls among the "wild cattle" of the southern plains. These were sullen, morose, solitary, and pugnacious, and when two of them met there was sure to be a fight. So savage were many of the battles of these "wild" warriors, that the number of living bulls was greatly disproportioned to the number of cows—one of the former to about twenty-five or thirty of the latter.

But the old Texas bulls did not carry hostilities quite so far as that; yet their duels frequently were fatal to one or the other of the gladiators, and occasionally to both. A bull thoroughly whipped, but still able to navigate, usually would sneak off to another bunch of cattle, with which he might or might not succeed in making himself recognized as a bad bull and in becoming the ruler of the outfit. Whipped bulls seldom allowed their fondness for trouble to lead them to attack their victors a second time, for they knew when they had met their masters. Several successive defeats often would bear so heavily upon their spirits that it was not uncommon for many of them to withdraw entirely from bovine society and go away and lead a hermit life for a while to recover some of their self-respect and to give their damaged confidence in their prowess a chance to re-assert itself; for bulls that had been vanquished repeatedly, lost standing in the herds to so great an extent that even the cows would begin to shove them aside or to dig them with their horns. The conduct of the victors was even more humiliating to their humbled foes, and nothing was too low for them to do in bringing general attention to the fact that they were in command and must be obeyed. They became tyrannical and lorded it over their herds until, in their turn they were either killed or deposed from power and driven forth into outer darkness by vigorous and valiant younger rivals.

A fight to a finish between two infuriated long-horn bulls was a desperate and bloody combat. After much preliminary defiant bellowing, roaring, and earth-pawing, in the fashion of the buffalo bull, they would pitch into each other with great fury. When one got advantage of the other he made the most of it with relentless ferocity, driving his horns deep into the body of his adversary, ripping and tearing, and usually disemboweling him. However, the weaker or less determined fighter, when he realized that the battle was going against him and that he was likely to get more than enough of it, would, if he could, get out of the scrape, even if his retreat covered him with ignominy; for, notwithstanding his blustering, furious temper and quarrelsome disposition, down deep in his heart he really placed his life above military fame and glory.

The round-up was the occasion for an uncommon amount of fighting among these ugly-tempered creatures, the excitement of the time stimulating them to exceptionally valorous deeds in honor of this break in the daily round of life on the range. Unless they made too much of a disturbance, or got in the way and interfered with the work, the cowboys—who cordially despised them—would let them fight it out without interference. Frequently in the old times a bull that had survived a fight at a round-up, but had been routed by his antagonist, would, in rage over his defeat in the presence of such a concourse, turn upon horse and rider and furiously attempt to use his horns on them. Usually the cowboy then would open upon him with artillery and very suddenly terminate his bellicose career; but this was not always accomplished, and during the years in which the "Texas Long-horn" flourished many a cowboy and his horse lost their lives in attacks upon them by infuriated bulls.

After Colorado cattlemen had made the beginning of improvement in the quality of their range-stock in the early '70's, the Texas longhorn bull became an outlaw in that Territory. By statute the Legislature declared it a misdemeanor for the owner of such a bull to permit him to run at large, and authorized range men to shoot him down whenever and wherever they found him abroad on the plains. But, as the provisions of the law extended also to scalawag bulls of other breeds, the legislation was not entirely a personal discrimination against the ugly-tempered bovine gentleman from Texas.

Colonel F. M. Woods.

Eighteen miles from Ashland, Wisconsin, in Lake Michigan, is beautiful Madaline Island. The spot is one of the most delightful locations in America for a summer resort. Here, fanned by cool breezes, and far removed from the rush and strife of business, the tired brain gains needed repose, and kind nature recuperates the system for new duties. Madaline Island is the summer resort of Colonel F. M. Woods, one of the greatest live-stock auctioneers of this country, and an acknowledged authority upon many perplexing subjects pertaining to the industry. For nine months of the year Colonel Woods is almost a constant traveler, hence his appreciation of a quiet home. His engagements call him to all parts of the Union; but each summer he lays aside care, and wooes the magic fountain of youth, amidst the most inspiring surroundings. In company with his wife, his children, and his grandchildren, he sees the days pass swiftly by on the island in the lake until the frost gives warning of the return of fall. Colonel Woods has founded on this island a summer home for all "Woodses" who can rightfully claim to be a branch of the original family tree, and has set apart an ample tract of land for that purpose. The genial spirit thus shown is an index of the man.

Colonel Woods is a native of Illinois, although for more than twenty years past a citizen of Lincoln, Nebraska. He is one of the most widely-known men connected with the live-stock business. For thirty years he has been prominently before the public in the sale of live stock, and his income as auctioneer amounts to as much as $25,000 a year—a record unsurpassed in Europe or America. His great success in a difficult calling is due to natural talents, assisted by recognized honesty of character, conscientious and long-continued study of the various species of animals led into the auction-ring, and a practical knowledge of the requirements of the great industry to which he has devoted his life. The introductory addresses of Colonel Woods at the sales where he presides are regarded as models, and attract large audiences of cultured communities. These addresses are received with equal favor by expert breeders and feeders of live stock and by the uninitiated, who may for the first time have the pleasure of hearing the great subject handled by a master. The educational value of the work accomplished by Colonel Woods and men of his stamp can scarcely be appreciated, but it is a constant incentive to advancement in all departments of the live-stock business. Such men may justly be classed as benefactors of the race, and their work is their most enduring monument.

Colonel Woods was born on a farm in Boone County four miles from Belvedere, Illinois, on the 13th of August, 1844. His father was a farmer, originally engaged in the wholesale boot and shoe business at Burlington, Vermont, but owing to reverses he moved to the West and established himself on the Illinois prairie, in 1842. Colonel Woods' father died when his son was only seventeen years of age, and Mrs. Woods was obliged to face the world with two small children. The farm was seventy-eight miles from the nearest market—Chicago—and the trip was performed ordinarily with an ox team. Colonel Woods recollects his father starting on the journey with a load of wheat, dressed pork, and eggs. Wheat sold for 30 cents a bushel, pork for $1.25 per 100 pounds, and eggs for 4 cents a dozen. One of the trips in the early spring, through the Illinois mud, netted just $2.00. The father invested the money in a black puppy dog, which he brought home in triumph as a present to his son. Although reared amidst the humblest surroundings, and accompanied in his early days by poverty, Colonel Woods regards his boyhood as the happiest period of his life.

This was due in a great measure to the influence and noble example of his mother. Mrs. Woods was no ordinary woman. Born in Massachusetts and educated at Amherst, Fanny M.

THE
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LIBRARY.

Woods was a woman of literary talent, and in trying years when her children were too young to be of assistance, she supported the family by contributing stories and articles of prose and poetry to the *Boston True Flag* and the *Boston American Union*. Colonel Woods had a sister who died early in life, and a brother who died at twenty-one years of age. Mrs. Woods was of the De Ruyter family, of which Admiral De Ruyter, of Holland, was a noted progenitor. History names Admiral De Ruyter as one of the greatest military men Holland produced in her palmy days when the Dutch ships sailed into every port of the world.

At the outbreak of the Civil War, Colonel Woods, then a boy of seventeen, enlisted in the 15th Illinois Infantry. He was sent home when his age was investigated, and continued on the farm until June, 1864, when he received a commission from the adjutant-general of the State to enroll a company of volunteers for the service. He enrolled thirty-eight men, presented himself with his squad, and was directed to report to the 152d Illinois Infantry, with the rank of first lieutenant. Hearing that the company was to be sent to Fort Douglas, Chicago, to guard Confederate prisoners, Lieutenant Woods consulted with his men, and wired the adjutant-general: "We have decided to withdraw unless we can go to the front. Can't you send us to the field?" The result was that the entire squad was assigned to the Elgin battery of the 5th Illinois Light Artillery, and proceeded at once to the South, where the farmer boys participated in the closing scenes of the tremendous struggle.

On the 5th of June, 1865, the command was mustered out of service, and the men returned to civil life as eagerly as they had joined in battle for the Union. Colonel Woods resumed his work on the farm, but he was no longer the farmer boy whose view of life and its responsibilities had been limited by the horizon of the prairie. He had seen great armies; his heart had been moved by mighty events that changed the trend of history and foretold the destiny of the world. He had been an actor in the greatest tragedy of the age, and he was one, perhaps destined by an all-wise Providence, to assist in the advancement of the glorious republic whose flag he had upheld. He taught school for several years in winter and worked upon the farm in the summer.

In 1866 Colonel Woods was happily married to Miss Eliza O. Eddy, who for more than a third of a century has been a constant inspiration to his life. Mrs. Woods was born in New York State, and was graduated from a seminary of Rochester, New York. She was teaching school in Illinois when she first met Colonel Woods; and to the wise counsel and good judgment of his wife, Colonel Woods ascribes a large measure of his success. The union has been blessed by a family of six children—Albert F., at present chief of the division of vegetable pathology of the Agricultural Department at Washington; Frank H., a promising attorney of Lincoln, Nebraska; Mark W. and George J., members of the Woods Investment Company, Lincoln, Nebraska, one of the most successful companies of the kind in the West; and Helen E., wife of Professor T. A. Haecker, in charge of the dairy department of the experiment station of the State University of Nebraska. A beloved daughter, Fannie E., the wife of Joseph Granger, a wholesale grocer of Lincoln, died at the age of twenty-one years. The children of Colonel and Mrs. Woods were educated at the State University of Nebraska, where every facility of the best educational systems is available.

The introduction of Colonel Woods to his life work took place unexpectedly one day in 1871. He had decided to quit farming, move to Chicago, and establish himself in the meat-packing business. The change required the entire closing out of his farm property, and the auction sale continued all day. At noon Colonel Woods invited the auctioneer to lunch, and, on the impulse of the moment, undertook to conduct the sale. "To my surprise," said he, in relating the experience, "I quickly sold an old cutter, worth $3.00 for $8.00, and closed out a pair of unbroken colts for $155. The prices were higher than the regular auctioneer could secure, and as I proceeded, my old friends gathered around and remarked that it was evident I was intended as an auctioneer."

Colonel Woods' experience as a meat-packer proved disastrous, owing to the dissipation of a partner, and at the close of two and a half years he began to be in active demand as an auctioneer One day his eye caught an advertisement in a newspaper: "A Nebraska farm to trade for diamonds." He answered the advertisement, saying he had no diamonds, but he would exchange town lots in Downer's Grove, eighteen miles from Chicago, for the farm. The trade was made by Colonel Woods without his seeing the land; and in 1881, being then $13,000 in debt, and with a wife and six children to provide for, he took up his residence in Lincoln, Nebraska, within convenient distance of the farm. He was attracted to Lincoln by the opportunity of educating his children, and his next step was to go further into debt by buying 100 Shorthorn cows and two black bulls, paying $800 for the bulls. Within four years, by good management, Colonel Woods discharged every dollar of his debts, and was on the way to fortune. The cows the first year produced 101 calves, and since that time Colonel Woods has been continuously a successful cattle-breeder, although devoting nearly his entire time to work as live-stock auctioneer.

In the course of his extensive experience in selling live stock, Colonel Woods has stood before thousands of audiences, and has faced many difficulties and witnessed many triumphs. The largest audience he ever addressed at an auction was at the International Live Stock Exposition at Chicago, where 10,000 live-stock men from all parts of the continent greeted the noted auctioneer with a tremendous ovation as he stepped upon the rostrum. A more enthusiastic reception has never been given to any auctioneer. In the early days, the auction sales of live-stock were held in the open air; later, large tents came into vogue, and now in the great centers, magnificent pavilions, provided with every desirable accommodation for bidders and spectators, are to be seen. In many communities the women are warmly interested, and the auction sale is a time for the assemblage of families of live-stock men for miles around. Colonel Woods has observed with pleasure the increasing interest of women in these sales and the growing appreciation in the beautiful animals exhibited in the ring. It is to him an evidence of a wider and deeper interest as time advances.

"Breeders," said he, "are becoming more practical. They are laying aside the pedigree craze and are learning to recognize individuality in an animal. This is a great step. The laws of heredity show that the sire and dam should be given a credit of fifty per cent in determining the standing of the animal; the grand sire and grand dam 25 per cent; the great grand sire and great grand dam, 12½ per cent. We have learned to recognize the importance of the top crosses, and a careful analysis of the pedigree shows that the first four top crosses constitute the pedigree. If I can see the first five crosses in a pedigree, I have about all that is to be desired. It is not necessary to look to the original cow. As an illustration, put a drop of water into 4,999 drops of whisky. Could we make anyone believe it is all water?

"When men will learn to breed live stock as carefully and scientifically as breeding is carried forward by scientists in the vegetable kingdom, we may expect remarkable results. By scientific selection of corn, the yield of corn in Illinois has been increased as high as thirty bushels to the acre. During the last fifty years greater advancement has been made in breeding of live stock than in all previous ages, but we only know our A B C's now.

"Take the science of feeding live stock. It is of the greatest importance, and is one of the most interesting subjects known to the live-stock world. Where many men succeed or fail, is in feeding. Some men can feed a threshing machine and it will run smoothly all day; other men who imagine they know all about it, will begin to feed, and the machine will stop in two minutes. Not one man in 100 knows how to feed an animal. He should know the capacity of the stomach and how to feed just enough and not too much. Great work along these lines is being accomplished at the agricultural experiment stations. A thoroughbred animal is simply a common animal fed up, year after year. The quantity, quality, and character of the food are of immense importance in determining the results, and many of the brightest minds are studying those subjects. The ideal animal for meat is the one that has the greatest number of pounds with the least age and at the least expense. My father used to feed pigs four years to produce a 500-pound hog; under improved methods of the present time, the 500-pound hog is produced in twelve months. The 1,300-pound steer may be produced in the same time, and the quick hog, the quick mutton, and the quick steer are demands of the age.

"Buyers and consumers are also asking for quality; they demand the greatest number of pounds of salable material. The science is so far advanced in the feeding of lambs that feeders in the East can prognosticate the exact character, quality, and thickness of meat that will be produced by a certain course of feeding as applied to lambs. The same accurate knowledge is demanded in regard to cattle, and the time is not far distant when a man will know exactly how many inches of fat and how many inches of lean will be marketable in a steer after a designated course of feeding.

"The tendency among farmers and live-stock raisers is toward concentration. These men learn from the great corporations, and are adopting the methods that are known to be successful. New men are entering the field and buying thoroughbred animals, and farmers have learned that the grade-cow is no longer profitable. The farmers, especially those west of the Mississippi River, are becoming more responsive, and the most enthusiastic sales of live stock are those held in farming communities. The American farmer is a man ambitious to better his condition, and he is by all odds the best farmer in the world. Our farming population doubles every twenty-nine years; the farms are being divided up, and the traveler sees three houses where formerly he could have seen only one. Less live stock on the farm, higher grade stock, better value. The self-binder does the work of ten or fifteen men; we must have the self-binder cow, hog, sheep, and horse. A year has been cut off in the manufacture of the hog, and breeders and feeders of Canada are far ahead of us in developing bacon and ham in the hog, instead of lard. The subject is so vast that as I grow older, I feel that I know almost nothing about it."

Colonel Woods declares that as long as men eat meat they will rear live stock for the market, and as long as live stock is reared, auction sales will continue. He has an especially happy faculty of expressing himself when standing before an audience, and on one occasion, at a sale in Illinois, when a magnificent looking cow was led into the ring, Colonel Woods delivered a remarkable inspiration entitled, "The Tribute to the Cow." This beautiful and merited eulogy will be found at the conclusion of this article. On another occasion Colonel Woods described the music of the cow-bell with an eloquence that brought tears from the eyes of many of his auditors. This address is classed as one of the gems of the English language. Colonel Woods was honored by an invitation to Europe to conduct a cattle sale, but his engagements did not permit him to travel so far during the busy season. It is by men of this caliber that the industry has been advanced to world-wide importance.

TRIBUTE OF COLONEL WOODS TO THE COW.

Grand and noble brute! Of all man's animal friends, the cow is the greatest; to her we owe the most. Examine all the different channels of our commerce into which she enters, and note the result should she be blotted out. A Sunday stillness would pervade the great stockyards of our large cities, and grass would grow in the streets. One-half of the freight trains that now plow the continent from ocean to ocean would side-track, for there would be nothing for them to do. Fifty per cent of the railroad workers would draw no pay on Saturday evening, and our tables would be bare of the greatest luxuries with which they are now loaded. The great plains of the West that the cow has made to blossom (financially) like the rose, would revert to the Indian from whence they came, and millions of prosperous homes would be destroyed.

None other like the cow! There is not a thing from nose to tail but what is utilized for the use of man. We use her horns to comb our hair; her skin is on our feet or our horses' backs. Her hair keeps the plaster upon the walls of our homes; her hoofs are made into glue and her tail into soup. She gives us our cream, our milk, our cheese, our butter, and her flesh is the meat of all nations. Her blood is used to make our sugar white; her bones, when ground, make the best fertilizer, and even her paunch she herself has put through the first chemical process for the manufacture of the best quality of white board paper, and now it has been discovered that that paper can be made into the best false teeth!

No other animal works for man both day and night. By day she gathers the food, and when we are asleep at night she brings it back that it may be manufactured into all the things of which I speak.

The cow has traveled with man from Plymouth Rock to the setting sun. It was her sons that drew the prairie schooner for the sturdy pioneers, as inch by inch, they fought to prove that "Westward the Star of Empire takes its way." The old cow grazed along behind, and when the day's march was done she came and gave the milk to fill the mother's breast to feed the sucking babe that was, perchance, to become the future ruler of this country.

Who says that what we are, we do not owe to man's best friend, the cow? Treat her kindly, gently, for without her—words fail me to describe.

William H. Montgomery.

It is doubtful whether any county of Texas can claim a more romantic history than Comanche County. Located near the geographical center of the State, and having natural advantages of soil and climate granted to few regions of the great Southwest, Comanche County attracted as settlers men of industry and good judgment. The families that established their homes on the streams of Comanche County in the years before the Civil War have become familiar names in many parts of Texas, and the sons and daughters of these pioneers have made an impress upon all of West Texas, and in many instances are now the leaders of flourishing communities. The pioneers of Comanche County, as is attested by the history of their struggles, were fearless almost to a fault. Having established their homes at the firing-line, they were never known to desert it. Scores of graves of these home-defenders in different parts of the county are lasting proofs of the devotion of heroic spirits in the defense of their families and their friends. These Comanche County pioneers were of the true American stock—a stock that is here developed from all the nations of Europe. They never knew when they were defeated.

Dr. George W. Montgomery was one of the leading pioneers of Comanche County. In the fall of 1855 he reached South Leon Creek from Mississippi, and pitched his camp near the spot where he located his permanent home. When Dr. Montgomery reached the end of his long journey westward, he found only two settlers who had preceded him in the region now known as Comanche County. Jesse Mercer and F. M. Collier located in a live-oak grove on Leon Creek, December 18, 1854, and erected the first log cabins in the county. The home of the Montgomerys was in the neighborhood of these first arrivals. Soon there came the Cunninghams, Deatons, Carnes's, Beryl Homesley, Jesse Mercer, F. M. Collier, and Fred Gentry, and the little nucleus thus formed became the foundation of a pioneer outpost and a rallying point for families seeking to establish themselves at the outskirts of civilization.

It was in this manner that the border was pushed forward from year to year and gradually the wilderness was forced to yield to the advent of men who faced every difficulty in order to improve their condition.

Dr. Montgomery was by nature a frontiersman. He was a native of Mississippi, where he was born in 1820. Of Scotch-Irish ancestry, he inherited the sturdy characteristics that have made this nationality known in all countries of the world. Although he devoted a large part of his time to farming and stock-raising, he also studied medicine, and for years was the only physician and surgeon in Comanche County. His duties required him to travel long distances, though a country often infested by blood-thirsty savages, but he performed his work faithfully, and gained a deserved place as one of the most respected citizens of the county.

While living in the State of Mississippi, he was married to Miss Caroline Hicks. This was in 1851, and the trip to Texas was undertaken four years later, when William H., the oldest son, was a year and a half old. The other children of the family were Sally J., Georgette, James A., and Henry A.

The journey of many hundreds of miles from Mississippi to the western Texas frontier was performed in wagons drawn by oxen. There were no macadamized roads, and the larger streams were crossed by ferries. The early home-seekers camped at convenient watering-places and lived in the most primitive style, buying provisions at country stores or of farmers, the faces of the movers turned sturdily toward the region where they hoped to establish a home under circumstances more favorable than were offered in the East. Joseph Hicks and his wife, the parents of Mrs. Montgomery, accompanied the party.

The objective point of Dr. Montgomery was 700 miles westward. The first part of the journey led through settled counties; the last part along the frontier through a region open to incursion by Indians, and in many long stretches without a white inhabitant. The night camps, the fording of swollen streams, the marvelous views of forest and prairie along the route, each day presenting new scenes, gave a variety to the impressions and were a fitting introduction to the adventurous life on the frontier. Other emigrants were traveling toward the cow country, and occasionally a score of wagons would move together. As the frontier was reached the wagons were arranged at night as a corral, and a guard was stationed to give warning of possible danger. Travelers of the Southwest in those days went about heavily armed.

Previous to 1860 Waco was the nearest supply point, a distance of 100 miles from a little settlement of Comanche County, named Cora, that soon sprang into existence. When a store was opened at Cora for the accommodation of the slowly-growing community, flour sold at $6.00 and $8.00 a hundredweight; salt, $7.00 to $10.00 a sack; sugar or coffee, 20 cents a pound; and clothing was about twice the price asked at the present time.

Up to the opening of the Civil War very little ground was fenced in Comanche County. The country was a great open range, presenting inducements to the cattleman that are not to be found to-day. The early settlers were honest, industrious, and hospitable. They taught their sons and daughters to work, and the result is seen in the success that has attended many of the younger generation of cowmen who are to be met with in various parts of Texas.

William H. Montgomery is of this new generation. He was born in Tippeh County, Mississippi, in 1853, but he came to Texas so early in life that his first recollection dates from the family home in Comanche County. The life of Mr. Montgomery in many respects has been singularly fortunate. His experience is an illustration of the possibilities of the American boy, reared in the most primitive surroundings. At the very threshold of life he felt that the world holds prizes that can surely be attained by him who has the courage to claim them, and the perseverence to remain in the lists. The cool head and the informed mind are of incalculable value in every department of life, and upon the cattle-range the active young man who has been reared in the saddle and who is acquainted with the herd at all seasons and under all moods is master of the situation.

From the first time he could ride swiftly across the prairie, Mr. Montgomery was in love with the range. At the age of ten years he could ride many miles from home, cut out cattle and deliver them at any point in the neighborhood. Within a few years he was able to negotiate trades and sell cattle, and on the range itself he acquired a thorough working knowledge of the handling of cattle from the time the calf was born until it was disposed of in the trail-herd that passed his father's door.

In a school like this were educated many of the most prominent figures among the cattlemen of Texas. Book-knowledge they had little opportunity to acquire. The school-teacher was slow in arriving in many frontier communities, and in instances innumerable, the boy learned to read and write at his mother's knee—the only teacher he ever knew, so far as educational instruction was concerned.

In the early life of Mr. Montgomery were crowded years of activity and self-denial. When not occupied with duties of the farm, the boys of the family were riding across the plains and through the valleys, rounding up horses or cattle and turning them back within boundaries established by mutual understanding of settlers. The cowboys are the best horsemen the world has ever seen, and in the Indian-fighting days, when a man's life depended on accurate use of the rifle or the revolver, some of the greatest shots were to be met with upon the plains. Few classes of men ever lived who could excel in physical endurance the young man who acquired his muscle in the saddle. This training continued all the year round, was in progress by day and by night, and required an elasticity and a toughness of frame that the modern man can scarcely conceive. The mode of life was so different from that of settled communities that some of the obstacles facing the early cowmen, as pointed out by Mr. Montgomery, will here be described.

The Indians caused a great deal of trouble in Comanche County. The losses inflicted upon settlers at times were so severe that the very existence of the settlements was threatened. From 1858, when the county was organized, throughout the period of the Civil War, and as late as 1874, many raids were made by the Indians, and sometimes every horse upon a ranch was driven off—representing the hard-earned savings of years. A chain of hills, known in the region as "mountains," passes northwest and southeast through the western part of the county. The plains Indians would raid the settlers from these mountains, disappear in a single night, and would travel so fast and so far that no pursuing party could overtake them. Not content with horse stealing, the Indians killed white settlers who came in their way, and carried women and children into captivity.

To meet this constantly threatened danger, the settlers were organized in companies which scouted through the country, and were also subject to call at any time the Indians might be reported in the region. Mr. Montgomery was a member of one of these companies. Men were obliged to go to their work armed, and immediately upon the alarm that the Indians had arrived, the women and children were hurried to a secure location where they were "forted up," while a strong party, as quickly as possible, proceeded upon the trail of the Indians.

Mr. Montgomery was five years of age when the Indian raids into Comanche County began. He was twenty-one years old when the raids came to an end. The first white man killed by the Indians in Comanche County was Peter Johnson. In the early part of January, 1858, Peter Johnson and his ten-year-old son, young Peter, were returning homeward with an ox wagon load of breadstuffs, when a band of Indians came upon them in the road, killed the father, and captured the son. In the retreat the marauders drove off a large herd of horses, and the long, protracted Indian troubles were started. Captain F. B. Gentry headed a pursuing party, but the horses became exhausted, and the pursuit was reluctantly abandoned. In the wilderness the Indians dropped little Peter Johnson after stripping him of his coat, hat, and socks. Fifty miles from the nearest settlement, in the bleak month of January, and without a mouthful of food, the boy was abandoned. He wandered for five days and nights with nothing to eat, and on the sixth day was found by a party of cowboys, who were upon a cattle hunt. The lad owed his life to the fact that he was following the cattle, thinking that they would lead him to friends. When brought into the settlement he was wasted almost to a skeleton, and was so weak that he could not speak above a whisper. The boy is now a robust man and a citizen of Comanche County.

It is claimed that for six weeks during 1860, skulking Indians were in the town of Comanche every night. All the citizens of the county, as described by an Indian fighter of the time, E. L. Deaton, were "forted up" in three places. The Indians had stolen nearly all the horses in the county, and the men were afoot. Any person who left the fort was in danger of losing his life; provisions were almost exhausted, and an appeal to the State authorities met with no response. It is difficult to imagine the straits to which the people of Comanche County were reduced.

In this extremity noble-spirited people of Bell County came to the rescue. They sent teams loaded with provisions and, in addition, a well mounted and armed party of forty men under Captain Cox. The Indians were driven out, but for months it required constant vigilance to prevent a recurrence of the former disastrous conditions. James Cunningham, father of a noted family of West Texas, was elected captain of a scouting company, horses were brought in from eastern counties, and by great effort cattle belonging to settlers and running at large were rounded up and prevented from being lost. The Indians were not then driving off the cattle herds.

In January, 1862, the Legislature of the State awakened to the importance of assisting in the protection of the frontier. The Frontier Regiment was organized to patrol the country from the Red River to the Rio Grande. Camps were established at such distances that scouts could leave camp each morning and travel to the next camp, returning the following day. In this way the entire frontier was traversed every day, and yet the Indians escaped the vigilant eyes of the scouts and continued their depredations.

Captain Buck Barry, Charles Goodnight, and John Sparks, now Governor of Nevada, were among the men enrolled with the Frontier Regiment, who assisted as they could in turning back the tide of barbarism. Every able-bodied man of Comanche County was subject to home patrol, and many were the bloody encounters between the white man and his inveterate foe.

Several conflicts took place at the town of Comanche, but the Dove Creek fight was one of the greatest battles on the plains ever engaged in by men of Comanche County. This battle was between combined forces of rangers and plainsmen, numbering, it is claimed, 500 in all, and a larger party of thoroughly armed Kickapoo Indians, who had escaped from the reservation in Indian Territory.

The Comanche County fighting contingent started from home December 21, 1864, and was rapidly increased by accessions from border counties. The trail of the Indians was struck on the Clear Fork of the Brazos, and on the morning of January 8th the attack was made upon the camp of the red-skins, which extended along the valley of Dove Creek near the mouth of the stream for a distance of three-quarters of a mile. At the end of five and a half hours the order to retreat was given. The Indians, with improved arms of the latest pattern, had stubbornly resisted, and the white men found that they were opposed by one of the largest and best equipped bodies of Indian warriors ever assembled on the plains. Years of conflict had taught the Indians how to meet their enemy. As the rangers withdrew to a point of safety they were flanked on two sides and vigorously attacked in the rear. They left twenty-six men on the battle-field. Among the dead were Don Cox and Tom Parker, two well-known Indian fighters of Comanche County. The next spring a party was organized and the remains of Cox and Parker were brought to their former homes and received the honorable burial these brave men deserved.

A heavy snow fell during the night following the battle, the Indians retiring across the staked plains in one of the severest storms ever known in the region. The white men were obliged to live for days upon horse meat.

This expedition is described as one of the incidents of life upon the Texas frontier. A history of the Indian depredations in Comanche County, the pursuit, the disappointment or the punishment, would cover several hundred pages, and would teem with stories of thrilling interest. The men of Comanche County never wavered in their determination to resist the Indian attacks, and in the end their hopes were realized. For thirty years the war-cry of the Indian has not been heard in Comanche County. The Indian has departed forever, and the spot where once he roamed in undisputed possession is now the abode of comfort and civilization.

It is interesting to draw a contrast between the past and the conditions that prevail to-day. When the Montgomery family settled on South Leon Creek the surrounding country had scarcely been encroached upon by the foot of white man. It was a hunter's Elysium. Bears, panthers, deer, antelope, and wild turkeys abounded over an immense area, and a short distance out in the plains the buffalo roamed in countless thousands. Mr. Montgomery can remember the time when the grasses were so rich that cattle grew to be "big fat," a phrase that passed into disuse after the great herds came upon the scene. The early grass-fed cattle of Comanche County often reached a weight of 1,200 or 1,400 pounds and netted 800 pounds at the New Orleans market. Settlers received for these cattle delivered on the range $15.00 or $16.00 a head. As grass was free, expenses and taxes nominal, and the climate exceedingly favorable for the development of herds, a remarkable opening was presented for money-making, had it not been for the Indians, the Civil War, and later the cattle-rustler and the over-crowding of the ranges. All of these elements had to be reckoned with, and the cowman only who adapted his operations to the changing conditions has succeeded. When a youth Mr. Montgomery drove an ox team to Waco and back, hauling flour, as Waco was the nearest milling point. As he grew up he learned every detail of range life, and by the time he was eighteen or twenty years of age he knew every cattle mark and brand in Comanche and adjoining counties. Having been born in this mode of life he inhaled it as naturally as he breathed the air.

In his boyhood days the New Orleans trail passed through his father's ranch, and later he saw great herds moving northward from South Texas to Kansas. He assisted for eight years in gathering cattle for the trail herds, and in the spring and fall round-ups he was an active participant. Mr. Montgomery has distinct recollections of the mavericking days, when word would be passed around among cattlemen of Comanche County that upon a certain date the branding of unclaimed calves would commence. He participated in great round-ups in West Texas when as many as 200 men took part, and cattle that had drifted hundreds of miles were collected and restored to their owners. As a good horseman and an expert in cutting out cattle, Mr. Montgomery was an active spirit in these gatherings, and gained an experience and an influence that assisted him in extending his live-stock operations.

In 1884 he established a ranch on Ennis Creek, Scurry County, forty miles north of Colorado City, and directed affairs so successfully that at the end of two years he sold out his herd at a handsome profit. In 1886 he re-entered the cattle business in Comanche County upon his ranch of 9,000 acres, eight miles south of Comanche, where he makes his home, surrounded with every convenience that mind can desire. Mr. Montgomery also operates a ranch comprising seventy-nine square miles, of which he owns twenty-nine square miles, in Crockett County. He is president of the Farmers' and Merchants' National Bank, which was opened in Comanche in the early part of 1904. This institution began its career under the most favorable circumstances, and is rapidly assuming a position as one of the permanent financial institutions of the community.

On April 19, 1874, Mr. Montgomery was married to Miss Susie Campbell, daughter of Charles Campbell, a pioneer of Comanche County. Mrs. Montgomery is a woman of unusual good sense, and her husband ascribes whatever success he has attained as in a large degree due to the constant support and assistance of his wife. The union has been blessed with ten children—George D., Jessie L., Clay, Carrie O., James H., Henry B., George W., Mary M., Annie J., and Judge, the youngest of the family, now seven years of age. In rearing a family Mr. Montgomery is governed by the practical ideas of the pioneers rather than the theory of many parents that book education should be first and ability to take care of one's self second. In teaching boys, he would give them a thorough knowledge of farm-work at the same time that they are attending school, so that the boy, whatever may be his business, may feel that he has a resource that he can depend upon. Mr. Montgomery's observation is that a large family of children can best be reared in the country, and this view is accepted by many intelligent, thinking persons. Observation teaches that the country boy is the one who has ruled the destiny of America, and, this being true, in years to come, the boy who is reared in the country will rule the destiny of the world. It is from homes such as have been established by Mr. and Mrs. Montgomery that the noblest characters are developed. As has been wisely said: "Man is ever a pilgrim, journeying toward the new and beautiful city of the ideal." It is in true homes of America that the ideal is attained, the secret of life is unfolded, and we learn that the object of our existence is to make each other happy.

Mr. Montgomery will ever hold his half-brother, Joe Gurley, in grateful and loving remembrance. Mr. Gurley was seven years older than Mr. Montgomery, and was the companion and mentor of his boyhood. Mr. Gurley died in 1902. He was a noted Indian fighter, and served with great credit as Sheriff of Crockett County. The mother of Mr. Montgomery is still living at eighty years of age in Comanche County.

Comanche County has gained deserved recognition as an agricultural county. Little did the early settlers imagine that in production of corn, oats, rye, and fruits of the orchard, Comanche would rival any county of the State of Texas. One authority estimates the entire population of the county in 1860 at sixty souls. In 1870 it had increased to 1,000; in 1880, to 5,000; and at present the county numbers a population of 25,000.

The great ranches have almost disappeared, and land which originally was freely offered for twenty-five cents an acre, now sells for $8.00 to $25.00 an acre. Judging by prices in other counties, the value of farming land in Comanche County will experience a marked advance within the next few years. The abundant water supply, usually found at a depth of forty or fifty feet, is an encouraging feature, and, as many parts of the county are well wooded, an abundance of fuel is available. Under favorable conditions a bale of cotton is raised to the acre, and 25,000 bales of cotton were shipped from Comanche for the season of 1903, making it a banner cotton county of Texas.

Judging by results attained, the early settlers of Comanche County made no mistake in going into camp on Leon Creek and there establishing a permanent abode. Could they have looked forward to the present—the beautiful homes, the educational, religious, and business institutions that have grown up and that are steadily reaching forward in keeping pace with the trend of modern activity—these pioneers would have felt richly rewarded for their toils and sacrifices.

Mr. Montgomery is now in the prime of life at fifty years of age, and he has witnessed the marvelous transformation from the primeval wilderness to the electric-lighted city; he has seen the patient ox team give way to the daily train service of the Frisco Railway that places Comanche in communication with the leading centers of business; he has performed his part in bringing about this result. Whatever success he has attained has been through his own exertions. A similar result may be expected from any young man of good judgment who is actuated by high principles and who has the courage to depend upon himself.

A Memorable Period of "Ups and Downs."

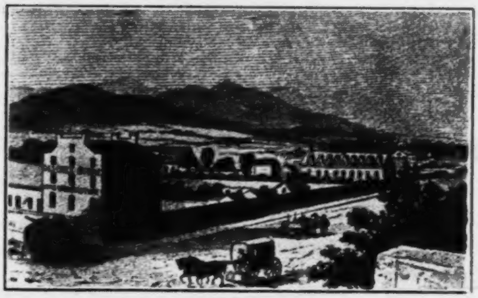
Increasing Activity in the West.—Passing of Old Conditions.—Historical Outlines of the Origin and Settlement of the Northern Range States.—Utah.—Nebraska.—Wyoming.—Idaho.—Montana.—The Dakotas.—Stockmen as Pioneers.—Colorado.—Nevada.—Isolation of Stockmen in the Far-Northern Country.—Sources of the New Range-Herds.—Texas Cattle Crop of 1870.—Profitable Business at the Abilene Cattle-Market.—Slump of 1871.—Heavy Losses of Cattle.—Collapse of Abilene.—Effect of the Depression of 1871.—Revival in 1872.—Panic Year of 1873.—Its Disastrous Consequences to Range Stockmen.—An Extraordinary Financial Disturbance.—Cattle Shipments Scarcely Worth Freight Charges.—Slaughtering Cattle for Their Hides and Tallow.—Prejudice Against Range Beef.—Beginnings of Kansas City's Live-Stock Business.—Range Cattle Industry's First Great Financial Disaster.—"The Irony of Fate."—Net Results of a Period of "Ups and Downs."

The decade of the '70's opened with increasing activity throughout the entire West and Southwest, as well as elsewhere over the country, and in this great forward movement the stockmen of the range were doing well their part. The exterminating wholesale slaughter of the buffalos was, whatever may be thought of its cruel wantonness, clearing the ranges for their occupation by an equal, if not a greater, number of cattle; the remaining roving tribes of Indians steadily were being brought more and more under absolute control; a railroad to the Pacific coast finally had been completed by the junction of the Union Pacific line and that of the Central Pacific in May, 1869; and the Kansas Pacific road was finished to Denver and provided with a direct connection from that place with the Union Pacific at Cheyenne in the summer of 1870. Other railroads were advancing into the West and Southwest, accompanied by a great flow of population.

These events had combined to mark the passing out of the old conditions over a wide belt through the central region of the Far West of earlier times, and also had stimulated enterprising and courageous men to seek fields for their activities in more distant parts of the country north of the trans-continental railroad. Cattlemen were not slow in taking advantage of opportunities for their business in that direction as these became apparent to them. As mentioned heretofore, some stockmen had taken range-herds of cattle into parts of Wyoming and even into the Montana country before rail connection had been completed; and it may be mentioned here that some herds were driven by way of Wyoming to Nevada and California in that period, beginning in 1866. The immense country north of the trans-continental railroad and between the 100th meridian and the Oregon-Washington eastern boundary, while it contained a few widely-separated towns and mining-camps, practically was a wilderness as late as 1870, as the outlines of the history of its several present political divisions and their condition at that time reveal.

Utah, of which only a small portion lay north of the railroad, had a considerable population long before this period—an isolated community occupying a small area in the midst of a vast expanse of mountains and plains, and which may be compared to a lonely island far away in one of the great oceans. Still, the people prospered and multiplied. Before our Civil War Utah extended from the eastern boundary of California to the Continental Divide in the present Colorado, and included the southwestern corner of Wyoming. In that period the Mormons had become well supplied with cattle and other live stock, and some of them made drives of cattle and sheep to California during the times when the demand there for beef and mutton was pressing. From the middle '50's until the railroad era, stage lines connected Salt Lake City with San Francisco and with St. Joseph, Missouri. Although the Mormons had settled in the wilderness of Utah only three years before, their number had increased to 11,350 in 1850; and in 1860 the white population had risen to 40,273, which was almost exclusively of the

Mormon sect. While the country in the general region occupied by this population produced much nutritious pasturage, and while the abridged Utah of our own times has developed a large live-stock business, the isolation of the people, before the construction of the transcontinental railroad, made production above their own needs next to useless. In March, 1849, the Mormons organized the State of "Deseret," admission of which was denied by Congress. In 1850 Congress provided for a Territorial government for Utah, Brigham Young being appointed Governor. In 1861 the eastern end of the Territory was cut off to help form the Territory of Colorado; and in 1864 this reduced Utah was diminished in area more than one-half by the creation of the State of Nevada. In 1870 the "Mormon Territory" (which became a State in 1894) had a population of nearly 87,000 in its 89,970 square miles; and around that year its resources for range operations in cattle- and sheep-raising began to receive enlarged attention.



View in Salt Lake City in 1859.
(*From Barber's "Western States and Territories."*)

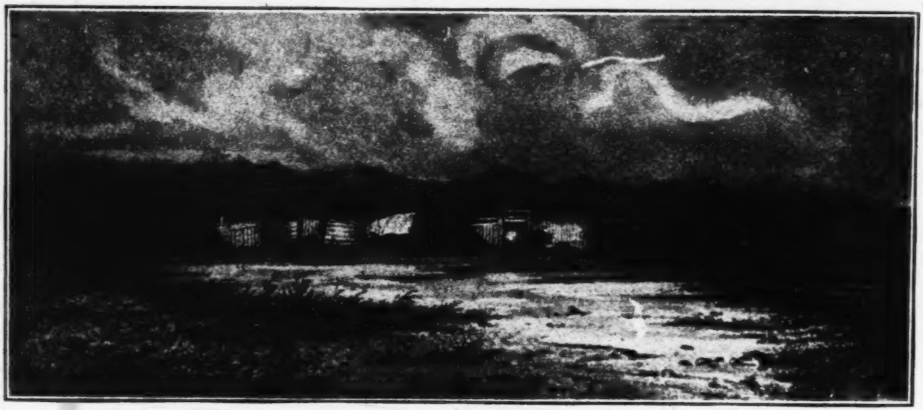
Construction of the Union Pacific Railway had opened to occupation the southern half of Nebraska and the southern part of Wyoming, and had given these regions speedy access to eastern markets. Nebraska Territory had been formed and its eastern border pretty well settled before the war; and in 1867 it had been made a State. Most of its eastern half being well adapted to agriculture, range-herding never obtained much of a foothold there, but the western essentially was a stock-raising country, the southern part of which became occupied by cattlemen about as rapidly as the buffalos disappeared.

The 97,890 square miles of Wyoming were from areas previously in Dakota, Idaho, and Utah, but derived more remotely from the original Territories of Nebraska, Utah, and Oregon, a portion having at one time belonged also to Washington Territory. Wyoming Territory (which was made a State in 1890) was organized in the summer of 1868. The first modern settlement within its limits was the Union Pacific Railway's town of Cheyenne that was founded in 1867; and the second, the town of Laramie, that was laid out in the spring of 1868. The Wyoming plains and valleys, which, roughly defined, constitute rather more than one-half of the total area, were, as they still are, very rich in exceptionally nutritious grasses; and stockmen had taken range-cattle into the southeastern part of the Wyoming country about the time that the Union Pacific's tracks entered it. Trouble with Indians that continued into the next decade so delayed extensive occupation of the Territory that in 1870 Wyoming contained only about 9,000 white people, most of whom were at Cheyenne, Laramie, and other places on the railroad. From as early as 1811 fur-traders, trappers, and some missionaries traversed the Wyoming country, but it was not until 1834 that any of these people located themselves in it. The first abiding-place of white men on Wyoming soil was the trading-post, Fort Laramie, which became the most famous establishment in the Far West of early times. It stood at the confluence of the Laramie and North Platte Rivers in the present-time Laramie County and about eighty-five miles north of Cheyenne. It was built in 1834 by Robert Campbell, a St. Louis fur-trader, who then named it "Fort William," in honor of his friend and business associate, William Sublette. A trapper named Laramie, having been killed on the headwaters of the stream that bears his name a short time afterward, Campbell changed the name of the fort in remembrance of Laramie; the river also receiving his name at the same time. In 1836 Fort Laramie was purchased by the American Fur Company, which continued to use it as a fur-trading post until 1849, when it was bought by the United States for a miltary post. Fort Laramie was on the old overland trail through the South Pass, by way of which the early Oregon emigrants and the northern-route California Argonauts passed on to their destinations; the old fort being the midway stopping-place for everybody and the central great station on the pioneer overland stage route. The second "settlement" in the Wyoming region was of the same type, but of less renown. In 1842 James Bridger, a noted pioneer in the Rocky Mountain country, built Fort Bridger on the Black Fork of Green River in the far southwestern part of the present State. Here "Old Jim" lived in a kind of barbaric pomp, surrounded by traders and trappers and by the dusky children of the mountains, owning considerable flocks and herds, and being recognized as a wilderness baron. The fort stood on a grant of "thirty miles of land," which Bridger had obtained from Mexico. In 1854 he sold the entire outfit to Lewis Robinson, a Mormon, for $8,000 in gold. The fort was occupied by General Albert Sidney Johnston's army during the "Mormon War" in 1857, and a small military force was stationed there for a long time afterward. It is said that Bridger had a Mexican business associate named Vasquez, who, in the palmy days of the establishment, went to and fro in the country "in a coach and four." The "settlement" represented by these establishments was about the only kind in the entire Wyoming country until after the Civil War, but it involved nothing like permanency or development.

Fort Laramie in 1851.
(*From Captain Howard Stansbury's "Exploration and Survey of the Valley of the Great Salt Lake of Utah."*)

The Idaho region, toward which the attention of ambitious stockmen had been directed from the time of the completion of the transcontinental railroad, and even before that event actually came to pass, was originally a part of the old "Oregon country." It had been organized as the Territory of Idaho in March, 1863. but with an area more than three times as large as its present 84,800 square miles, since it included the whole of the Montana area and nearly all of that of Wyoming. This area was reduced by the creation of the Territory of Montana in 1864, and brought to its present dimensions by the later organization of Wyoming. It is said that a mission was established at Coeur d'Alene in 1842, but aside from this and until 1852, when gold was discovered near the northern boundary, the country had been visited only by hunters and fur-traders since Lewis and Clarke passed through it in the opening years of that century. Its grazing-lands, while aggregating an extensive area, mostly are scattered among mountain valleys, the Snake River valley containing the larger bodies. In 1870 the Territory had a white population of 14,999 and more than one-third that number of Indians; nearly the entire white population having settled in the country subsequent to the Civil War. It became a member of the family of States in 1889.

Part of the territory now comprising Montana originally was included in the Louisiana purchase and part was of "Oregon." It is thought that the brothers Verendrye, French explorers from Canada, who journeyed in that direction in 1743, may have visited the Big Horn range. Trading-posts were erected on the Yellowstone River by Manuel Lisa in 1809, and by William H. Ashley in 1822, and by the American Fur Company in 1829. In 1840 Father Peter de Smet, of the Society of Jesus, began missionary work among the Flathead Indians, and this was followed by the establishment of a permanent mission among the Indians of the Bitter Root Valley in September, 1841. Lewis and Clarke, while on their historic exploring expedition in the opening years of the nineteenth century, passed through the Montana country both going and returning. Fort Benton, at the head of navigation on the Missouri River, and long an important trading-post, was established by the American Fur Company in 1846. But Montana had but few white inhabitants, beside traders, trappers, and several missionaries, until after the discovery of gold in 1862, when many of the disappointed and disillusioned gold-seeking pioneers of Colorado flocked thither together with a bad class of people from various sources, and which made within a few years plenty of work for Vigilance Committees. Montana was organized as a Territory in May, 1864, from country taken from Idaho, and in 1870 had 20,595 inhabitants, exclusive of Indians, but including a good sprinkling of Chinese. Its immense area of 146,080 square miles made it the third in size among the political divisions of our country, proper; Texas and California being the only ones that exceed it in extent. Some Texas cattle were driven into western Montana as early as 1867, and after having been kept on pasture a short time were sold for the local markets in the mining towns. But hostile Indians along nearly the entire way made the early cattle drives very hazardous. Indian hostility in aggressive form continued in the eastern parts of the Territory, as in western Dakota, until past the middle of the decade of the '70's. In August, 1873, a fierce battle was fought on the Yellowstone River in Montana between United



Fort Bridger in 1851.
(From Captain Howard Stansbury's "Exploration and Survey of the Valley of the Great Salt Lake of Utah.")

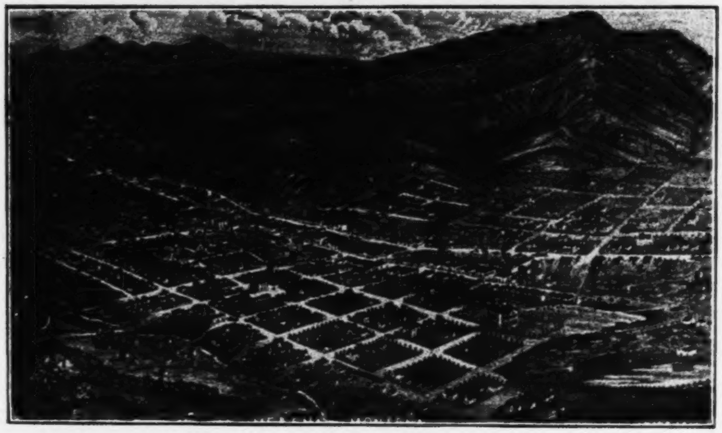
States troops and Sioux Indians; and in June, 1876, General Custer and his entire command were annihilated in the Little Big Horn River valley by an overwhelming force of Sioux Indians under Sitting Bull. This was followed by the removal of all Sioux from Montana and the throwing open of the country north of the Yellowstone River to settlers. While there were some later troubles with the Sioux, and a long spell of guerrilla warfare with the Apaches in Arizona, the Little Big Horn affair was the last real battle fought by Indians on the American continent. About three-fifths of the area of Montana consists of river valleys, bottom-lands, extensive benches or terraces, buttes and rounded eminences, and long backbones or divides that ascend into the mountains. The country is well watered, and produces much nutritious bunch, buffalo, and other grasses. This large Territory, which had an average length east and west of 470 miles and a width of 275, was admitted as a State in 1889.

The creation of the Territories of Wyoming and Montana had left the old Territory of Dakota with the area of the present two Dakota States; the Territory when it was organized in March, 1861, having included an enormous extent of country. The first permanent white settlement within the limits of the reduced Dakota Territory as it was left in 1868, was made near Pembina in 1780 by French Canadian traders, and very early in the nineteenth century some other trading-posts were established in that part of the country, while in 1810 Lord Selkirk built a fort near the present town of Pembina under the supposition that the region was British soil. Although Dakota was a part of the Louisiana purchase, it long remained an unknown country to nearly all of the American people. In 1827 a few small trading-posts were located on the lower reaches of the Dakota (or James) River, and in 1829 the fur-trader, Pierre Choteau, of St. Louis, built Fort Pierre not far from the site of the present city of Pierre. In 1849 the eastern part of the present South Dakota was made a part of Minnesota Territory and that part of it west of the Missouri, together with the North Dakota area, became known as unorganized Mandan Territory, and so continued until May, 1854, when Nebraska Territory was formed, and of which it became a part. But after the admission of Minnesota in 1858 much of the Dakota region had neither legal name nor existence until March, 1861, when the Territory of Dakota was organized and made to include, also, what are now Wyoming, Montana, and Idaho. Settlement had been made at Sioux Falls in 1856 and at Yankton in 1859, but immigration was delayed by Indian outbreaks in 1858 and in 1862; and but little was done toward settlement of the North Dakota part until after the Civil War. The great plateau of the Missouri River extends from northwest to southeast across the Dakota country. In North Dakota the plateau is broken here and there by low hills, the remainder of the surface being chiefly undulating prairie with only occasional ranges of low hills; in South Dakota the country east of the Missouri, including the plateau section which is lower there, is a vast plain, while that west of the river is more or less broken, the Black Hills having an average elevation of nearly

Sitting Bull.
(*From a photograph.*)

6,000 feet. The larger portion of the two Dakotas is agricultural land, but an immense area in the western parts is range country with the characteristic verdure of the plains. However, the danger of depredations by Sioux Indians made this grazing region the last one in the northern country to be entered and occupied by cattlemen. There is no data of the population of the Territory of Dakota in 1870. In 1889 it was divided into the two Dakota States; North Dakota having an area of 70,795 square miles and South Dakota of 77,650.

In most parts of the great northern domain referred to in the foregoing, stockmen who went into them within ten years after our Civil War were the pioneers of civilization—the advance guard of the host that subdued the wilderness, built railroads, and founded cities. It is not to be understood that the occupation of the grazing regions in this vast empire by stockmen became general during that period, for many large districts within its far-reaching extent remained untouched until the decade of the '80's. But some of these stock-raising pioneers went far with their herds, and in doing so drove buffalos out of their way, and frequently found it a part of their business to "stand off" inhospitable Indians.



Early View of Helena, Montana.
(*From Winser's "Great Northwest."*)

While a permanent settlement (Denver) had been made in 1858 in "the Pike's Peak country," then a part of Kansas Territory, and various others had followed soon after, the total white population with which it was credited in 1860 was the questionable number of 34,277. The Territory of Colorado was formed mainly from parts of Kansas, Utah, and New Mexico in February, 1861. Its isolation during the Civil War and subsequent Indian hostilities, and until the advent of its pioneer railroads in 1870, greatly delayed development. The Mexican population in the strip that had been taken from New Mexico had long been engaged in stock-raising, mostly of sheep, but elsewhere in the Territory live stock had received comparatively small attention previous to 1870, at which time its large area of 103,925 square miles contained only 39,864 inhabitants other than Indians; the interests of the thin population having been centered on politics, mining, and warfare. A beginning in the range-cattle business had been made in Colorado in the late '60's on the plains near the mountain border, but the industry did not reach a position of importance there until a few years later.

Nevada owed its political existence to the discovery of the famous Comstock Lode in the summer of 1859. It became a State in the spring of 1864, having in all of its great area of 110,700 square miles less than 7,000 white inhabitants in 1860. The country was part of the territory acquired from Mexico, but no settlement of any kind had been made in it while it belonged to the Mexican domain. A few explorers, including Fremont, and some missionaries, hunters, traders and trappers had traversed it. and the northern section had been crossed by the emigration to California after the discovery of gold in that State and by the drovers who took cattle and sheep thither in the '50's. At the time of the discovery of the Comstock, about the only white people who had settled in the country were in the Carson Valley. The State had 42,491 white people in it in 1870. The population increased until 1880, when a decline set in; however, recent discoveries of gold give promise of turning the tide. Nevada is the most arid of the divisions of the Union, but there are numerous local districts that afford pasturage, and these are being used to the best advantage by stockmen, whose industry now is the mainstay of the State.

While the early stockmen in the older fields of range-herding in Texas, Kansas, and in some parts of southern Nebraska kept ahead of the advancing frontier line of settlements, and truly were pioneers, their situation was different in one important respect from that of their brethren in the far-northern country. Their business was closely connected with the settlements instead of being remotely separated from them, as was the case with many of the northern stockmen in the pioneer period of the cattle-raising industry.

As we have seen, Texas had been the principal source of the supply of stock-cattle for the new ranges that were opened up in the northern country, but as early as 1870 northern ranchmen had become disposed to increase the number of eastern cattle among their herds for the purpose of improving the general character of their stock.

The Texas "cattle crop" of 1870 was a large one, and beside the thousands of head that were sent out of that State in various other directions in that year, about 300,000 were driven into Kansas, the larger part of these going to the Abilene market, where many buyers for all grades had foregathered from the East, West, and North. While the Texans had brought a multitude of stock-cattle to sell to the range-stockmen, they had also brought an equal, if not a greater, number of beeves ready to be sent forward to Eastern markets. Prices for every grade had advanced, and the demand in the East for beef cattle had become so active that many of the Texan drovers realized on their herds of fat stock at Abilene in that year net profits around $20.00 per head; and others did almost as well proportionately with their range stock. McCoy, who was the active founder of Abilene as a cattle market, in his "Sketches," says of the market there in 1870:

"No drover whose stock was good for anything had any trouble to find a buyer at good prices, and the season closed with the most satisfactory results to all interested. Many 'through' or fresh-driven herds sold at $30.00 to $40.00 per head, and from $50.00 to $60.00 per head were realized for wintered herds, of which there were quite a large number. The season was dry, the grass was rich, and the cattle became very fat."

Another great factor in producing these satisfactory conditions in the initial markets for beef-cattle in that year was the fierce "freight-war" that broke out early in the season and continued for several months between the trunk-line railroads from Chicago to the Atlantic seaboard and that also affected rates on roads from Chicago west. But it was with rates on cattle from Chicago eastward that the most remarkable performances in transportation were concerned. In the competition for business, rates went down and down until the freight charge on a carload of cattle to Buffalo, to Albany, or to New York—they did not care which—sank to the nominal point of $1.00. It was said that when the fight reached that stage some of the roads took entire trains of cattle through to New York free of all freight charges, and some shippers afterward asserted that in the scramble to keep up a show of business and to demonstrate to rivals that

Early View in Boise City, Idaho.
(*From Thayer's "Marvels of the New West."*)

they were not weakening, certain roads paid a bonus, sometimes in money and at others in the form of a valuable gift, for the privilege of hauling consignments of cattle to New York for nothing, and also provided free passes there and back for the men who went along to take care of the stock. One of the practical effects of these operations was to transfer the seaboard market prices of beef cattle to Chicago, and, in turn, what would have been under normal conditions the Chicago prices were shifted West to the Missouri River region.

The opulent returns from the business in 1870 were followed in the next year by some of the usual, if not necessarily inevitable, consequences. About 600,000 head of Texas cattle were taken into Kansas in 1871—the year of high-tide in the history of the trail movement to the North from the prolific cattle State. Beside these the northern range stockmen—in Kansas, Nebraska, Colorado, Wyoming, and from more distant parts—made in the aggregate large contributions of beef cattle to the market. But all sorts and conditions of stock, the good, the bad, and the indifferent, were in the great host, and buyers could have been accommodated with almost anything in the form of a cow. But there had been a radical change from the market conditions of the previous year and in many respects a complete reversal. Instead of throngs of eager buyers as before, there were now less than half the former number, and these were indifferent and held what seemed like ridiculous opinions of the values of cattle in comparison with those that had ruled in 1870. Business throughout the country was slackening, and in some quarters the "currency question" was causing apprehension, although this had not yet made much outward impression upon general conditions. Furthermore the high prices of the previous year for beef cattle that largely had been due to low and even less than nominal freight rates, had stimulated feeding in the corn-producing States and this had resulted in an over-supply nearer the places of consumption. Moreover, the Eastern railroads had made a treaty of peace that put freight rates on cattle high enough to recoup some of the losses that had been incurred in hauling for nothing and giving shippers a bonus beside; and the Northern range-stockmen were not needing so many stock-cattle as before, for the natural increase of their herds was making itself felt, and there was a still stronger disposition among them to increase the ratio of other than Texas cattle on their ranges.

So the business of 1871 turned out badly; beef cattle sent to Chicago, where they came in competition with better material, sold at low prices that steadily went to lower ones until profits were changed to losses and shipping was almost discontinued, while prices for range-stock became about what buyers were willing to pay. Conditions in the autumn were but little changed for the better, and nearly one-half of the 600,000 Texas cattle remained unsold and had to be put in winter quarters in Kansas. The available pastures were depleted by the waiting herds that had been held from week to week in hope of finding a buyer, hay was scarce, the cattle had become run down in flesh, and the ensuing winter was a hard one. A large number of herds was driven farther west in Kansas where buffalo grass could be found, but the storms covered it, and in the rigors of that memorably severe winter the emaciated cattle perished by tens of thousands, leaving many of their owners involved in financial ruin. Of the results of that year's operations James Cox's "Historical Record of the Cattle Industry of Texas," says:

"Numerous estimates have been given the writer as to the loss resulting from the attempt to overdo cattle-shipping from Kansas in 1871, as a result of the spasmodic and alluring boom of 1870. One gentleman, who resided in western Kansas during the time of the calamity states that conservative estimates placed the loss at about $3,000,000, or at about $10.00 or $12.00 per head of the cattle which had to be wintered over, as a result of the short-sighted policy adopted by their owners. The cattle had, however, been driven north with the expectation of averaging $40.00 or $50.00 per head, these figures being based upon the average rates of the preceding year. On this calculation the loss per head must have averaged nearly $25.00, and the aggregate loss must have been more than twice the figures stated."

The year 1871 also was distinguished by the collapse of Abilene's brief period of domination and "glory" as a cattle-market and shipping-point. A large number of its citizens had become tired of the attendant lawlessness; rival cowtowns farther west, and to the south as well, had sprung up and intercepted the business that had made it great in its way for four or five years, and therefore in 1872 it entered upon a new and more sedate career; although for several years after its "glory" had departed it became an oft-quoted example of a "dead town."

The unhappy general results of the northward driving operations in 1871 had a depressing effect upon many of the Texas cattlemen. Of an incident in which this was reflected Mr. Philip H. Hale, editor of the St. Louis *National Farmer and Stock Grower*, in an address delivered before the Southern Live-Stock Association in March, 1904, said:

An Old Picture of Fort Pembina.
(*From an old print.*)

"I recollect the first time the subject of cattle values was brought to my notice. I was in a stage coach on the old El Paso stage line, which made a circuit north and then eastward from San Antonio to Dallas, Texas. It was a summer's day in the year 1872, and we were taking a round-about journey through an open country containing millions of buffalo which did not appear to be very wild, and occasionally we were in sight of a few cattle that continually had their heads and tails up ready to stampede at the sight of a stage coach or a few horesmen.

"Two others were with me in the stage, one of them a cattle ranchman or cattle drover. He was advising the other man to keep out of the cattle business. He said that a stock of cattle was worth but $6.50 around, and that to drive beef cattle all the way to the shipping points of Kansas and then ship them to St. Louis or Chicago was simply to give them away. His beef cattle had netted him but $12.00 to $15.00 per head. He admitted that it did not cost much to raise cattle, but the great difficulty was to realize upon them."

However, all of the Texas cattlemen had not taken this view of the situation, and many of those who had survived financially the misfortunes of 1871 started north in the spring of 1872 with droves to find cattle-money where so much of it had been lost twelve months before. But the effect of the previous year's experience was seen in the greatly-reduced number of cattle driven from Texas to Kansas in that year; the total being about only one-half that of 1871. Notwithstanding there was a large number of beef cattle from the Northern ranges put on the market that season, prices generally, as well as the average quality of the Texas stock, were much better than in 1871, and most of the drovers from the South made a fair profit on their ventures. As it had become evident that the corn crop would be a very large one, there was an active demand from the corn-growing States for cattle for feeding purposes, and therefore most of the grades of southern stock which, under the conditions that had existed two or three years before, would have gone to the Northern ranges, was taken for the corn-farms; and in that year the more discerning of the Texas stockmen began to see that the demand for their stock cattle from the Northern ranchmen was nearing its end, and that in the near future their recourse would be to drive their surplus immature beef-stock to ranges in the North and fatten it there on their own account, as some already had begun to do. This marked the beginning of the great business of transferring Texas cattle to Northern ranges and there rounding them out for market—a business that is still going on.

The panic year of 1873 brought disaster upon the live-stock industry in every part of the range country, and there was scarcely a cattleman in the entire region who did not suffer from its effects. To the mass of the people everywhere the collapse came almost without a rumble of forewarning, and range-cattlemen were among those who were least prepared to meet the emergencies it precipitated. Many of the Northern stockmen had been in business but a short time and had every dollar they possessed invested in their herds and ranch outfits; and furthermore nearly all of them, together with their brethren in Texas, were using more or less money borrowed from banks at high rates of interest.

The profits that had been realized on the drives of 1872, although they were not extravagant, encouraged the Texans to put a greater number of cattle on the trail in the following spring, and therefore about 400,000 head were driven into Kansas in 1873, a large part of which were yearlings, heifers, thin cows, and lanky steers of various ages. Among these there were thousands in quality and condition so inferior that the northern ranchmen would not have wanted them at any price, even had they been in the market for more range stock—which they were not. Beside this great host from the South, there was a heavy output of beef cattle from the Northern ranges, which, as the animals had been wintered in the North and had not been reduced in weight by long drives, was of better quality than that of the trailers from Texas.

However, as things turned out in that year, quality did not count for much, for the good were sacrificed with the others, and the losses relatively were about as great upon one kind as upon another. During the summer a lethargy hung over everything; buyers for the beef grades were few in comparison with their number in the previous year, there being about only one-fourth as many, and the prices they offered not only made profits to the cattlemen impossible, but cut deep into the capital that had been invested in the stock. Moreover, it seemed that nobody wanted stock-cattle at any price much above the value of their hides and tallow, and buyers even at such figures were very scarce. The prospects for a much-reduced corn crop narrowed the outlet for them in the direction of the corn-farms, and there was practically no demand from the ranges. The Northern range cattlemen had all the stock they wanted and the older ones among them were preparing to supply incoming new hands at the business with such stock cattle as the latter might need.

View on a Cattle Ranch in Frio County, Texas, in 1873.
(From McCoy's "Sketches of the Cattle Trade.")

As the summer passed, some of the waiting herds were closed out at whatever price could be had for them, and their former owners—who, by the way, proved to be the less unfortunate ones—turned their faces homeward, heavier of heart and lighter of pocket than when they came; but the majority held on, keeping their cattle on grass and fattening them in expectation of better market conditions early in the fall; in the meantime, however, either sinking more and more of their own capital, or, as generally was the case, getting deeper and deeper in debt for borrowed money. The contractors for Indian beef-supplies relieved the situation to a limited extent, but there were far more cattle for sale in Kansas alone in that summer than all of the Indians in the United States could have eaten during an entire revolution of the earth around the sun.

Conditions elsewhere in the country during the summer were but little, if any, better, for the supply of cattle heavily overshadowed the demand almost everywhere. Some of the feeders in the corn-growing sections, who had bought Texas stock rather freely the autumn before, with which they had expected profitably to convert surplus corn into beef, held back from marketing their steers until hope ceased to induce longer holding; and then saw them go at prices that left nothing whatever for the corn that had been put into them. Notwithstanding that upward of 400,000 head had been put on the trails to Kansas and other thousands had been taken in other directions, Texas still had a large surplus of all grades of cattle with which their owners did not know what to do. The Southern markets for beef-stock, never very capacious in comparison with those of the North, became glutted at next to give-away figures, and as for the other grades, everybody in Texas had more than enough, regardless of prices at which range-stock was offered.

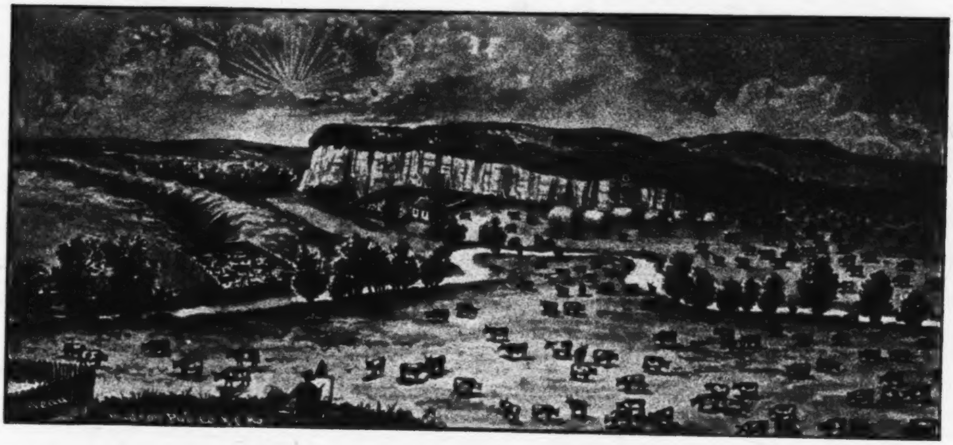
The suspension on September 18th of the great banking-house of Jay Cooke & Company, which had been financing the construction work of the Northern Pacific Railroad, precipitated "the panic of 1873." This was the most extraordinary financial disaster that the country ever experienced up to that time, and in many respects it rivaled that of 1893. It reached its most acute stage about the middle of the next month, and in the short space of less than thirty days its paralyzing effects extended into every line of business in the length and breadth of the land. It shook the banking system of the country to its very foundations, prostrated thousands of commercial establishments, and cut off the wages of hundreds of thousands of workingmen. National banks, State banks, and savings banks tumbled aheap, manufactories closed their doors, and construction of all public works was suspended. The monetary circulation of the country was palsied to a degree that carried distress to that vast mass of the people to whom credit for the necessaries of life has little or no existence.

Perhaps in no other great industry was the collapse more severely felt than in the live-stock trade. There was an immense number of cattle in the farming States which, like many thousands of range-cattle, had been held in expectation of improved conditions in the fall markets. Most of the range-cattlemen were more or less in debt to banks for loans that were nearing maturity, their cattle being pledged as security. Banks were going down nearly everywhere, and those that had not yet succumbed were struggling for their lives. These, with rare exceptions, as well as those that were in the hands of receivers, could grant no extensions; and so in either case payment of loans was called for as they fell due.

The situation led to throwing a great many range-cattle upon the market in the autumn for whatever price they would bring. But the summer season had been unfavorable to the beef-stock that had been held in and near Kansas to go forward to eastern markets in the fall, and therefore a large percentage of it, probably more than half, really was unfit for the slaughter-houses and needed to be winter-fed for marketing in the following spring. This extraordinary combination of adverse circumstances caused nearly every shipment of range beef cattle from the Kansas region to markets east of the Mississippi River during the last three months of 1873 to result in heavy loss; and in frequent instances consignments sold for but a trifle more than the freight charges and incidental marketing expenses. So it was not uncommon for Kansas shippers who had bought beef-stock from the Texas drovers and northern ranchmen at prices that were ruinously low to the sellers, to become losers themselves at the rate of about $5.00 for every horn they sent East during the first few weeks of the panic times—or about $10.00 per head, for nearly all fashionable range-cattle wore a pair of horns in those days. Of course, upon such a market basis as this, shipping could not be long continued, nor could there be much of it in proportion to the total number of cattle upon which owners almost frantically were trying to realize something. To the close of the year conditions remained much the same, and shipments made in its last two months consisted in the main of only the best; and this was done because it seemed that the losses would be less than in any other way of disposing of such grades.

Bad as the situation was with relation to beef-cattle, it was worse for the range-stock that had come from Texas. For the latter there was practically no market that counted for much in dollars and cents. A large number—the better part of the collection—had to be put on ranges in western-central Kansas, in Colorado and elsewhere, while some were sent into the corn-growing sections of the country; but this disposition, however, entailed heavy losses upon the men who had brought the beasts from Texas and had hung on with them for several months awaiting a chance to get at least a reasonable part of their former value out of them. With the rest, that numbered well into the thousands and mostly were thin cows and rough scalawag steers, there was nothing left to do but sell them for a trifle to be killed for their hides, horns, and tallow, the residue of the carcases being thrown away after the tallow had been rendered out.

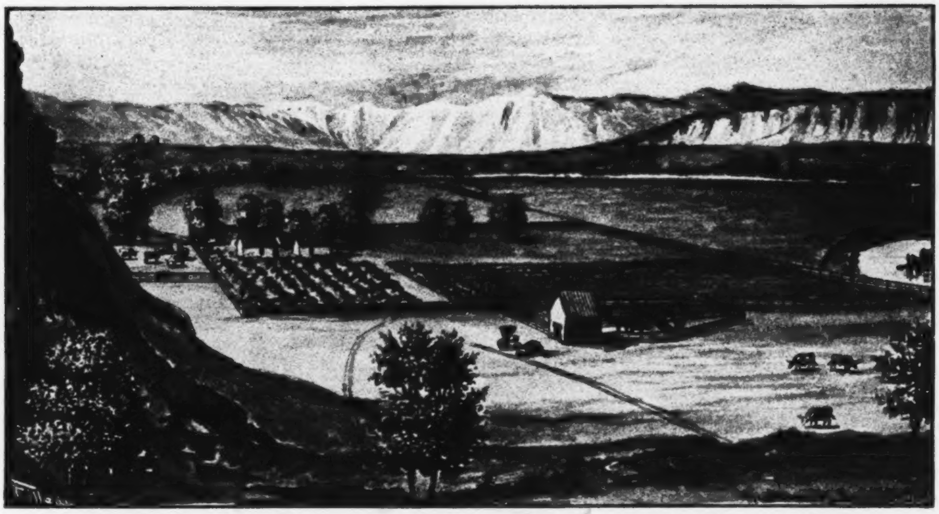
This wasteful method of disposing of rough and nearly worthless stock was resorted to in Texas also during the period of extreme depression in these panic times, and gave peculiar emphasis to the severity of the conditions that prevailed. Several rendering establishments were set up in that State, the most important one being located at Fulton in Aransas County, and many thousands of rough cattle, for which only a few dollars per head were paid, were consumed by them. Some of these concerns saved a little marketable stuff from the animals' carcases, but in the main the operations went no further than to take the hides, horns, hoofs, and tallow, and were continued until recovery from the effects of the panic raised the values of rough cattle above such prices as the rendering establishments could afford to pay. Since that time there has been no slaughtering of range-cattle as a business proposition merely for the by-products.



Range Scene on the Saline River, Kansas, in 1873.
(*From McCoy's "Sketches of the Cattle Trade."*)

As a general thing in the early '70's the farther

East range-cattle were shipped the smaller were the prices received for them regardless of the difference in freight charges; a result mainly due to lingering prejudice against range beef, which was stronger about in proportion to the eastward distance. By the year 1873 Kansas City had come into considerable prominence as a stock-market and packing-center, and until September of that year a shade or two less ruinous figures for cattle were obtained there than at Chicago; and commonly men who went on to Chicago with their stock, after having refused Kansas City prices, realized less in net money. Indeed, it seemed that the more a man did in his efforts to retrieve himself the worse was the outcome.



View on Charles Goodnight's Colorado Ranch Near Pueblo in 1873.
(From McCoy's "Sketches of the Cattle Trade.")

To one who is familiar with the present great magnitude of the packing-house industry and the stock-yards business at Kansas City, it is almost incredible that they are the upgrowths from very small beginnings made but a few years more than thirty years ago. As early as 1868, a small packing-house had been built there, but its business both as to buying and selling was for several years merely local in extent; and in the same year the Missouri Pacific Railroad Company fenced up small yards with capacity for ten or twelve carloads of stock. But it was not until 1871 that Kansas City began to cut much of a figure in the live-stock trade. In that year a stock-yards company was formed and went into business with ample facilities for handling stock in large numbers; and new packing-houses also were erected, and began operations in the autumn. But the Kansas City market for cattle finally was swamped by the panic of 1873 almost as completely as were the markets at the western railroad shipping-points and those of Chicago, St. Louis, and other great centers in the eastward direction.

The panic brought upon the range-cattle industry its first great and general financial disaster. The Civil War had interrupted and broken it down in Texas, beyond the limits of which it had not at that time extended excepting in reaching markets for its products; and the depression of the year 1871, while it entailed many and heavy losses, to a considerable extent had been due to over-reaching and other causes for which the cattlemen themselves were responsible; and, furthermore, the most serious of its effects had been confined to the stockmen of Texas.

But in 1873 the circumstances were altogether different, and the range-cattlemen, with the exception of some of the Texans in driving North so much range-stock, had no just cause for reproaching themselves for their misfortunes. The blast that had swept so many of them into the slough of financial despond and had brought so many others to its brink, arose far away in the East, and neither they nor their industry had contributed in any manner toward raising the storm that took on hurricane powers of destruction in the open country of the West. We have an example of the financial fate that befell many stockmen in 1873 in the following reminiscence of one who shipped some good-sized bunches of cattle from Kansas to Chicago early in the autumn of that year:

"I had five thousand head of cattle at three points in western Kansas ready for shipment. They were fairly good stock, and ought to have yielded me a profit of at least ten dollars a head, even in medium bad times. A friend of mine in Chicago made inquiries at my request, and notified me if that I shipped on at once I should realize prices which would leave me at least a reasonable profit. I flatter myself that I did not anticipate such a happy result, but I certainly thought, judging from my friend's figures, that I could about come out even and have a little money with which to start in again the following year. I accordingly shipped, laying out my last dollar in expenses, and borrowing a great deal more into the bargain. I never slept a wink on the way to Chicago, and when I arrived there I saw that I had not worried any too much. I was asked a dozen times in half that number of hours what on earth I had shipped for, and when at night I compared the various offers I had received I began to ask myself the same question, and to feel an intense desire to take myself into some obscure locality and kick myself a few times for being a fool. I held off a day or two with a kind of vague hope that things would get better, or at least that they could not get any worse. But on the third day the papers were full of reports of bank failures and suspensions, and the offers made me on my first arrival were all repudiated when I tried to close with those who had made them. When I finally got rid of the bunch I found that I had lost heavily on the shipment. This sounds incredible, but it is a fact. Three of my purchasers failed before settling time, and what money I had was barely enough to pay what I had borrowed for shipping expenses. If ever a man was flat on his back I was that man, but my losses were small compared with some others, who lost heavy fortunes during that terrible fall."

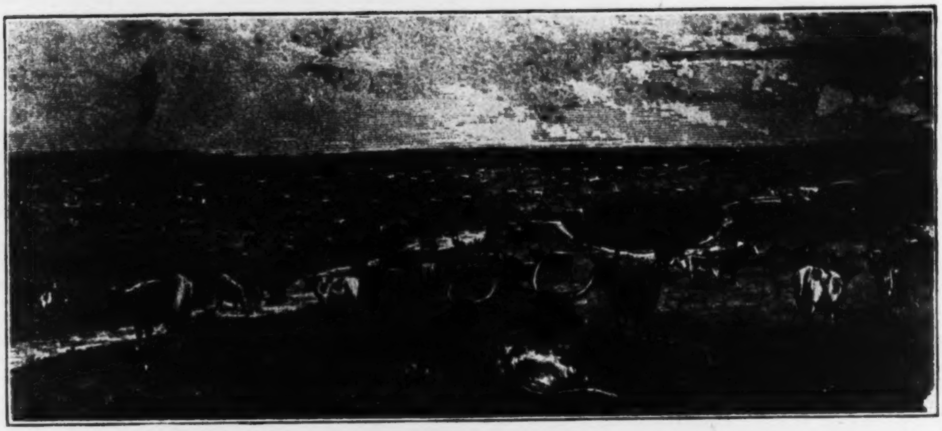
Indeed, many cattlemen lost heavy fortunes during that terrible fall, and many others had suffered adversities almost equally great earlier in the season of operations. Hundreds were hopelessly bankrupted and never got on their feet again, while hundreds more were so badly crippled that it was with the utmost difficulty that they succeeded in starting in again the next year even in a small way. McCoy says that a single firm of Kansas shippers lost $180,000 in three weeks' shipments in the autumn, notwithstanding that they had bought the stock from cattlemen at prices that left the latter scarcely enough money to repay what they had borrowed on the herds they sold. But for that matter, the range-stockmen, the drover, the trader, or the shipper, in whatever part of the country he might be found, who had not been widely separated from more or less, if not from all, of his former assets, was a rare and rather incredible exception to his kind. As a rule, the misfortunes were borne bravely by all of them. Among the range people there were some who sought relief for their feelings by swearing at their luck, at horned beasts generally, and at various other creatures and things associated with their troubles; others laughed as they told how and to what extent they had been "done up" or "cleaned out" in the round-up of disaster; while still others faced the situation quietly and philosophically, and, if they had any resources left, already had begun to "figure" on what they could do the next year. But the whiners and the wailers were few and far between.

However, there was one thing that stood out plainly in the foreground of the Texas men's future in the cattle business, and concerning which practically all hands were in agreement; and that was that the Northern ranches no longer would afford markets of any importance for Texas surplus range-stock, and certainly none at all for scrubs and outcasts which had been rather numerous in most of the drives in recent years. All of them saw that future drives to the North should be of cattle ready for conversion into beef, or good stock that they could put on Northern ranges themselves and keep there until it was ready to go to the eastern markets.

No one ever attempted to calculate the total amount of money lost by Western cattlemen in 1873; the number of millions in money values that withered and became more and more shrunken until mummified. While many told freely of the extent of their losses, and while circumstances prevented others from concealing theirs, even if they tried to, there were yet many others who kept their troubles to themselves. Therefore there were no practicable means of reducing to the form of "statistics" the sums of the results of the disaster. The industry was but little more than out of its infancy in 1873, and severe losses fell upon no small number of Western cattlemen who marketed in that year the first output of their ranches.

The range sheep-raisers proportionately suffered with their cattle-raising neighbors, and much of what is said in the foregoing concerning the latter, applies with equal force to the former. But this industry, while it had risen to a place of great importance in Texas and in New Mexico, had extended only moderately into the Northerly ranges.

What is sometimes called "the irony of Fate" appeared in connection with an attempt of a large number of cattlemen to provide for protecting and advancing their interests through the medium of an organization; for which purpose a meeting was held in Kansas City in September, 1873. The first evening was devoted to a banquet, but in the evening following "The Live Stock Men's National Association" was formed and its officers elected. Of the first evening's meeting, Joseph G. McCoy, who was chosen Corresponding Secretary of the organization a day later, says in his "Sketches of the Cattle Trade of the West and South":

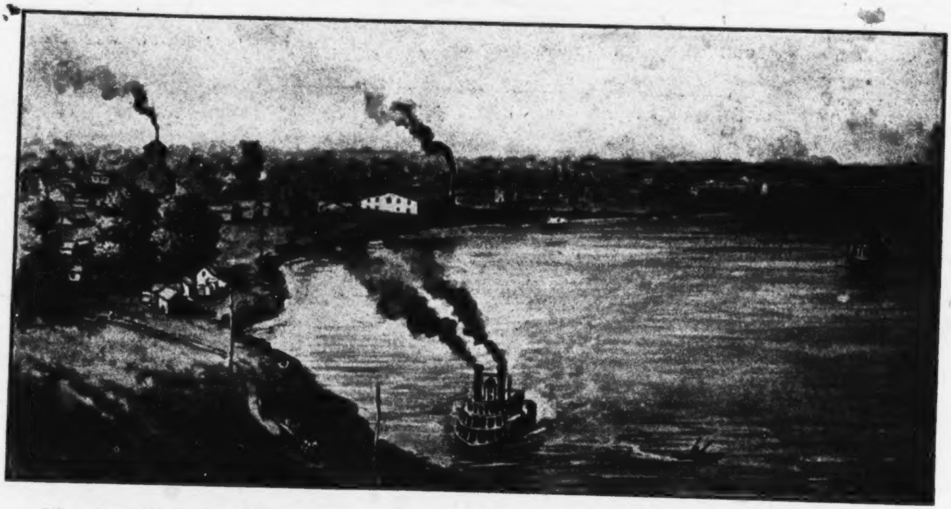


Range Scene Near Coffeyville, Kansas, in 1873.
(From McCoy's "Sketches of the Cattle Trade.")

"About the middle of September, 1873, a mass meeting of live stock men was held, and a banquet given, at Kansas City. The purpose of this was to bring the Northern and Southern cattle men together in social contact and intercourse, and if possible to inspire the drooping cattle trade with greater life and activity, and also to form an Association of Live Stock Men. The mass meeting and banquet was a great success. Near two thousand men sat down to the banquet, and addresses were delivered by Governor Woodson, of Missouri, and other prominent men, representing the various sections of the West and Southwest."

McCoy goes on to recite the various reasons then existing for the proposed organization, and his narration, made more than thirty years ago, is not only sound, living argument for the present time, but shows to us how old are some of the abuses against which stockmen still are protesting vigorously:

"It is a fact that every other branch of business or occupation (although not of one-half the magnitude nor employing a fourth as many men as the live-stock business) is organized completely, and by such organization aids and protects its members in a thousand ways. It is true that live-stock men are, or have been heretofore, entirely unorganized, and as a result thereof they are not correctly informed as to the extent or magnitude of the business in which they are engaged; nor do the stock-men of one State, as a class, or as a rule, have any definite knowledge of the number engaged in like business in any other State or Territory. This might be truthfully said of most stock-men as to their adjoining counties, and often townships. Nor do they know, or have good means of informing themselves, as to the number of live stock, hogs, cattle, or sheep, that are being prepared for market, or that are likely to be put upon the market at any given time in the future. And when they are prepared, or ready to market their stock, if the nearest and most convenient means of transportation chooses to ask them exhorbitant rates of freight, they submit, and although they will complain piteously about the extortion, they do nothing to prevent its repetition. Indeed, it has often been said that every stock-man was an independent sovereignty in and of himself, and preferred to act for himself alone, free and independently, even if he does pay dearly for the privilege of so doing. It is idle to question the proposition, that if stock-men would organize they could have at least a part of the say in fixing rates of freight, yard charges, feed charges, commissions, and other incidental expenses to which the business is inevitably subjected. It would be next to impossible for railroads to effect and maintain combinations which the stock-men could not break. Corporations, by combination, would not successfully put up and maintain the price of freight fully thirty-three per cent. over rates charged in previous years, and that, too, when live stock is selling at prices ranging from twenty-



View at the Bend of the Missouri River at Kansas City in 1873.—Packing Houses in the Middle Distance.
(*From McCoy's "Sketches of the Cattle Trade."*)

five to fifty per cent. below those realized in former years. No such outrage could, or would, be attempted successfully, or tolerated, if live stock men would act in concert to obtain that that they desire, and of a right ought to have; neither could stock-yard companies insolently mistreat and abuse live stock, or charge exorbitant and outrageous prices for yardage, hay, corn, or for other services rendered; they would not dare to do it. But as matters now stand—the live stock men entirely unorganized, each one by himself and for himself only, are subjected to the arbitrary restrictions and extortionate charges of conscienceless corporations. A stockman or shipper sees himself wronged, and his stock abused, neglected, and otherwise mistreated, but feels himself powerless as to remedies, and usually does nothing but mutter curses, not loud, but deep; then pass along, only to have the same outrages repeated as often as he attempts to go to market."

Fate decreed that the meeting to form this first organization of range-stockmen should be held but a day or two before the suspension of Jay Cooke & Company, which precipitated a panic in which stockmen, like thousands of other business men, were forced almost exclusively to give their allegiance and attention to the law of self-preservation. The Association did not survive the period of disaster, and it was about a quarter of a century before a permanent one of national extent, as it was intended that this one should become, was organized.

As we have seen, the period from 1865 to the close of 1873 was one of "ups and downs" in the live-stock industry on the plains; yet, notwithstanding the intervening misfortunes, and the actual disasters of 1873, the net results were represented by a great advance as to territory occupied and an immense increase in the number of animals that were eating the free grass of the ranges.

McLaughlin Brothers.

The growth in popularity of Percheron, French Coach, and Belgian draft horses in the United States is one of the phenomenal developments of recent years. This great work is in a large measure due to McLaughlin Brothers, who have been actively engaged in importing Percheron and French Coach stallions for fifteen years, and have attained a position as the largest importers of stallions in the world.

There are four brothers in the firm—J. R., J. B., T. D., and William. While attending the Ohio State University at Columbus, Ohio, their attention was attracted to the Percheron horse through experimental breeding, which was in progress at the university. In 1889 they entered upon the business which has given them a most enviable reputation, and during the period that has elapsed have imported to this country nearly 3,000 stallions, and are now importing the finest animals they can purchase at the rate of 400 a year. The demand was small at first, and during the depression in the horse business, continuing for four years, from 1894, McLaughlin Brothers was the only firm that imported a single Percheron or French Coach stallion, When the revival in the industry came, in 1899. the business took immense strides. In 1901 the demand was so great from the West that establishments were opened in Kansas City, Missouri, and St. Paul, Minnesota, in addition to the original headquarters at Columbus, Ohio. William McLaughlin assumed charge in Kansas City and built one of the most modern stables of the kind in the world. T. D. McLaughlin went to Merriam Park, St. Paul, and erected stables that are the admiration of horsemen of the Northwest. J. R. McLaughlin remains at Columbus, and James B., the buyer of the firm, spends the greater part of his time in France. In recognition of the work he has accomplished in encouraging high-class horse-breeding, Mr. McLaughlin was presented by the French government with a medal of honor, the only horseman of America ever so honored by the authorities of the French Republic.

This firm has carried off the highest prizes in their special lines at the four last World's Fair Expositions—Omaha, in 1898; Paris, in 1900; Buffalo, in 1901; and St. Louis, in 1904. They were not defeated for the first prize in the Percheron or French Coach class at any of the expositions named. At St. Louis they were awarded two grand champion prizes and a total of 181 awards, representing a cash value of $9,272.00.

As the popularity of the breeds represented increases in America, no limitations can be assigned to the special branch which it has been the pride of this firm to develop.

As is shown in earlier sections of this work the horse has been the servant and companion of man from the earliest dawn of civilization. The history of the development of the horse is co-extensive with the development of man, and it is probable that if it were possible to gather a consensus of opinion as to the domestic animal that stands first in the opinion of mankind, the horse would easily carry off the honor. The superiority of one breed of horses over another is due in a very large degree to the intelligence and care bestowed upon the breeding. That the Arabians understood the science of horsebreeding is generally acknowledged, and authorities declare that the French people are endowed by nature with the qualities necessary for producing remarkable results in the breeding of horses. By the application of scientific principles of selection, beginning with the best breeds of Arabian horses, the French breeders have produced results in modern times that have elicited the warmest approval of the best judges of horses in the world.

For fifty years Percheron stallions and mares have been brought to America for breeding purposes, and during the past two or three years more of these horses have been imported to this country than ever before in an equal period of time. In the Perche, France, where the finest Percheron horses are raised, the records of pedigrees of the horses were kept principally by the government. The inferior animals, no matter how well they may be bred, are discarded and go into commerce, while those that are superior—the best ones of each generation—are permitted to multiply and improve the breed. It is easy to see when these principles of selection are applied why each generation of Percheron may be better than its predecessor.

In the earliest years when Percheron horses were brought to America it was not possible to put into application the principles that exist in France. It was necessary to establish stud-books and pedigree records in order to preserve the purity of the breed of Percheron horses as it was found in France. Less than thirty years ago a stud-book was started in France under the auspices of the *Société Hippique Percheronne de France.* About the same time the Percheron stud-book was established in this country, the purpose of both of these books being to maintain the purity of the breed of Percheron horses in America and elsewhere.

At present three distinct organizations are in existence in this country for the purpose of keeping a record of the pedigrees, as well as promoting the welfare of the breed and encouraging those who are engaged in raising and importing Percherons.

The Percheron Registry Company, incorporated under the laws of Ohio, is recognized by the United States Government as a reliable authority, and has offered agricultural and live-stock shows very liberal prizes as a substantial encouragement to Percheron breeders. If the good work is carried out to its logical conclusion, in a few years, it is believed, the Percheron breed of horses in America will rival in all desirable qualities the Percheron horse in his native land.

In the course of an interesting talk on the French Coach horse, William McLaughlin said:

"The prevailing characteristic of a Frenchman is his devotion to those things that make life pleasant. From an artistic standpoint, he leads the world. Pleasure and horses go together. A Frenchman is instinctively a horseman. The French cavalry is without an equal in the world. Since the time of Napoleon the French government has taken charge of the breeding of horses that are best adapted for cavalry uses, and in accomplishing this purpose the government has contributed to the production of a very high class coach horse. The cavalry horse of France is usually selected after the committee has finished their work of picking out the very best stallions for breeding purposes. Nearly every French Coach stallion that stands for public service in France is owned by the French government. The French have been willing to advertise and sell their other breeds of horses, but they have been loath to part with their coach horses. The instinct of self-preservation causes the French government and the French people to keep their French Coach horses at home in order to have better horses than can be found in any other country.

"The breed of French Coach horses has its origin from the same source as the English Thoroughbred. On the one hand the English Thoroughbred surpasses in speed, while the French Coach horse is superior in all of those qualities that go to make up a high-class carriage horse. Like the Percheron, the French Coacher is developed in its highest state of perfection in Normandy, but he comes from the northern part, while the Perche is in the south of Normandy.

"To visit the city of Caen in the fall when French Coach stallions are presented to the government committee is indeed an inspiration. To see more than a thousand young French Coach stallions, all submitted to every conceivable test in order to select those that have the best form, the most endurance, and possess in the highest degree that magnificent action that has given the breed its world-wide renown, is, indeed, a rare privilege.

"The French Coach stallion is about sixteen hands high; his average weight is between twelve and thirteen hundred pounds; his color is, as a rule, bay, brown, or chestnut. His outline is most pleasing. He is a fast trotter, and under the conditions of horse-racing in France under saddle over a turf track, a distance of 4,000 meters, he holds the record. The French method of developing their trotters cultivates a very high, attractive style of action. Not only is the French Coacher seen in every French city hauling the most gorgeous equipages over the boulevards surrounding Paris, but he is to be seen in the best stables throughout all of the capitals of Europe, especially in London.

"The French Coacher supplies the English royalty with their most useful and most attractive carriage horses.

"For more than twenty years French Coach stallions have been brought to America very sparingly. Where they have been crossed with the best road mares, trotting-bred mares, the result has been most satisfactory. High-grade carriage horses that go into our best markets and sell for the highest prices usually have a strain of French Coach blood flowing through their veins.

"A perfect type of the French Coach horse when standing or in action, is impossible to describe in words. To fully realize his superiority, to appreciate and admire his style and magnificent high action, one must actually see him. Words are inadequate to describe him, and the most perfect picture falls far short of the perfect horse."

The following contribution by J. B. McLaughlin will retain a permanent place in literature relating to breeding of horses in France:

TORRENT.

French Coach Stallion, French Coach Stud Book No 2813. Color, bay; foaled June 4th, 1897. Awarded first prize and championship Chicago Horse Show, 1902; first prize American Royal Show, 1903: first prize and championship International Live Stock Exposition, 1903; first prize, championship, and *Grand Championship, World's Fair, St. Louis*, 1904; first prize and championship International Live Stock Exposition, Chicago, 1904; and twenty other first prizes. Imported by McLaughlin Brothers.

"For a number of years I have spent most of my time in France, so that I am more or less familiar with the different breeds of live stock and the methods of breeding. France is divided into numerous districts, each one of which breeds a certain breed of cattle, a certain breed of horses, certain definite breeds of live stock. In France the breeders follow in the footsteps of their fathers. They stick to the breeds that their ancestors have tried and found sufficient for their needs. These different breeds have been improved to a very great extent by the great interest which the government has taken in them.

UNIVERS.

Percheron Stallion, Percheron Stud Book of France No. 47622, Percheron Register No. 33977. Color, black; foaled May 27, 1900. Weight, 2,310 lbs. Awarded first prize and gold medal at show of Société Hippique Percheronne, 1903; first prize in collection at Great Annual Show of France, 1903; first prize Indiana State Fair, 1903; first prize World's Fair, St. Louis, 1904; first prize American Royal Live Stock Show, 1904; Grand Championship American Royal Show, 1904. Imported by McLaughlin Brothers.

"There are in France some five recognized breeds of draft horses. They are named from the places where they are raised. The most important of all, the one that has made the draft horse of France familiar to all of the breeders of America, as well as to the rest of the world, is the Percheron. It is raised in the district of Perche, which is about fifty miles wide and about seventy-five miles long, beginning about seventy-five miles southwest of Paris and extending about seventy-five miles farther. It is on the hills between the two great rivers of France, the Loire, which begins in the middle of France and runs west, and the Seine, which runs north from Paris to Havre. The next in importance is the Boulonnais, which takes its name from the district of Boulogne, which is in the very north of France, near Belgium. This breed of horses, which has not been imported to a very large extent to America, is a heavier horse than the Percheron; is clean in the bone, a little steeper in the hip, a little coarser in the neck, without the action and the life and vigor of the Percheron. The color of the Boulonnais horse is generally white. The next breed in importance in France is the Nivernais, which is bred in the middle of France. It is a race of black horses that has been improved of late years by the Percheron. It has never been imported to a very great extent. The fourth in importance is the Ardennais, which is raised near the Swiss and Belgian frontiers, and partakes more of the characteristics of the Belgian. It is a small type of Belgian. The last and least of the draft breeds of France is the Breton, which is a breed of light horses, used mostly for omnibus work, and has been improved of late years with the Percheron. It is bred in Brittany in the district in and about Nantes.

"Of the light horses in France, the most important, and the one that the French government takes the most interest in, is the French Coacher. These horses are raised in the northwestern part of France, in the district near the sea from Alençon, in Orne to Havre in northern Normandy, while the Percheron is bred in the district immediately south of this.

"The French government started about 300 years ago, in the year 1650, I think, to maintain a stable of stallions at a place called Le Pin. That is right on the border between the Coach horse district and the Percheron district. Ever since that time, during the different governments that have arisen and gone down in France, this stable has been maintained. But it is of late years under the republic that perhaps the greatest interest in the improvement of horses has taken place. Under the law in France only horses that have been inspected by the government officials are permitted to stand for public service. They consist of three classes: Horses that are approved by the government and are given a large subsidy ranging from $60.00 to $600; horses that are inspected by the government and given permission to serve mares without any subsidy; and the horses belonging to the government. The latter class, of course, are permitted to serve mares and are sent throughout the various districts to serve mares at a very moderate price. In fact, for government horses, the highest price that they are permitted to get is 100 francs, or in our money $20.00. This makes it so that certain noted horses, especially among the Coach breeds—horses like Fuschia—have requests for something over 1,000 mares to be bred to them every year. The breeders are compelled to draw lots in order to get the service of these horses at all. The ordinary service fee for government stallions is 20 francs. In France every breeder has a chance to get a good horse owned by the government to serve his mare for a very moderate price. This is a very good thing for the small breeder, the man who perhaps is not as well educated in what is a good horse as the large breeder. They do not, therefore, have an oppotunity of breeding their mares to an inferior horse.

"In 1870 the present government started a school at Le Pin, where every man who has anything to do with the purchase of a horse, or the approval of a horse, must attend and graduate. Therefore, since that time, all the government men have been choosing exactly the same type that they have been taught is the best at the school. This has been of very great advantage to the breeders of that country, because the government men, the men who are at the head of the haras, are always members of the jury or judges at the shows. So it is not like it is in this country. At their fair the government man is always the chief of the commission to pass upon the horses. At all of their shows in that country they pick on the horses of a certain type, of a certain form, of a certain kind; while in this country and at different fairs the horse that is placed first in one may be placed last in another, simply because the men who judge them do not have the same ideals, have not the same efficiency, and perhaps do not know horses equally well.

"I do not know that I need tell you anything about the Percheron, the draft horse, which is one in which everybody in America is interested. I think you all know the type of Percheron horse —the best the world produces. He will sell for more money in the American markets to-day than the draft horse of any other breed, and I want to tell you here why I think this is to a great extent true. The horses of a country—and I want you to mark it well—the horses of any country, are as much the product of the soil, of the men that raise them—the breeders—as they are of the sire and dam that made the foal. The horses of any section have certain traits, the same as the people who breed them. The people of Normandy, where the Percheron and the French Coach horses are raised, are more of the type of the people in America than those of any other country in Europe. They are not the people whom we see caricatured as the Frenchmen in our comic papers. They are men who are descendants from the Normans, the people of William the Conqueror. In fact, the majority of men with whom I do business in Normandy are men as large or larger than I am, so that they are not at all the type of Frenchmen that people in America ordinarily think comprises all of France. These men have been interested in breeding from the time they were old enough to see. Their fathers were interested in the same sort of horses. Their grandfathers and their great-grandfathers were born in the same country. They have been taught to seek for the same breed, the same sort of horses, the same type. They have been taught that in order to raise good horses you must feed them well and you must feed their mothers well while they are carrying them and while they are nursing them. You cannot make a silk purse out of a sow's ear, nor can you make a good horse on the north side of a straw stack in the winter. Good horses of any breed must be cared for and properly cared for. The people in that section of France do that. The Percheron horse, as I told you, is bred in a district about seventy-five miles long by about fifty broad. The majority of the stallions that stand in the Perche are owned by the large stallion owners; they are not government horses; they are horses that have been approved by the government.

"The stallions are mostly in the central and middle parts of this region; the mares are in the outer edges. This country, except the little valley in the middle, which is a country of pastures, is a country of culture. The colt as a suckling colt is not turned out to pasture; he is kept in the stable, and the mare is worked—she is worked hard, but she is fed well. The colt is always under the eye of the breeder. The breeder probably has only one or two mares. He has not enough means to keep the colts after they are weaned, so at weaning-time the colts are all sold to the men who live in the middle part of this district; the men who own the stallions—men like Perriot and Aveline. So at six months old the colt is taken up into a pasture country, where he is kept until he is a year and a half old, unless he turns out to be an inferior colt, when he is sold immediately. But ordinarily they are kept by the big breeders (as they call themselves, but we would call them horse-raisers, not breeders) until they are a year and a half old. Then the colts are sold to a district a little farther north, where they are put to work. So that from the time they are a year and a half old until they reach the age of four years they have earned their keep, and I think myself that the working of draft horses, not too hard—the way they work them there—has been instrumental to a very large extent in giving the breed of Percheron horses the strength, the force, the endurance, the activity, the ability to move a heavy load at a rapid rate that no other draft horse in the world possesses.

"The Coach horses are bred, as I have stated, north of the Percheron district. They are not intermingled; the breed is not mixed up in the least with the draft horses. They are a race of horses that has been developed since the Percheron horses. Their breed is not as old as the Percheron. The native mares of this country were good mares; strong, rugged, hardy, low down and short-legged. About 100 years ago the government began improving them by crossing them with Thoroughbred horses. They continued this judiciously until about forty years ago. The Thoroughbred, you must all know, is the Arabian or English race horse. It is the only type of horse that we recognize by the name of Thoroughbred. Other breeds of horses which are distinct breeds are called pure-bred horses, or full-bloods. At the present time, and for many years past, the improvement has been made and attempted solely within the breed itself. They are not making any more outcrosses to the Thoroughbred. This gives a race of coach horses possessing more strength, more vigor, more action, more endurance, than any other race of Coach horses or any other breed of Coach horses in the world. For many years the government has been choosing and selecting horses of this breed that were of the finest and highest type, which were able to trot fastest in a long-distance race. The Coach horse of France is the trotting-horse of France. They have not been able yet, and it has been tried many times, to take any American horse and put him under the same conditions on the same tracks as the French Coach horse and beat him in a race. That has been attempted time and again. Their races are trotted over sod-tracks, hardly ever less than two miles, but the most of the races are from two miles to two and one-half miles. As they race their horses these long distances under saddle, so they produce a breed of horses with higher action, possessing more endurance, that trot faster than any other breed of Coach horses in the world."

The Forward Movement After the Panic of '73.

Recovery from Panic Effects.—Extension of Range Stock-Raising in the South and Southwest.—The Arizona Country.—Invasion of the Oklahoma District.—Activity in the Central and Northern Plains Regions.—Enlarged Movement Into Wyoming and Montana.—Construction of the Northern Pacific Railroad.—Trailing Texas Cattle to the Far North.—Upward Tendency of General Conditions.—New Features and New Methods in the Packing-HouseIndustry.—Their Good Effects Upon the Range-Cattle Business.—Prices for Range Beef Cattle.—New Men on the Ranges.—Advance of the Texans Into the Central and Northern Parts of Their State.—Live-Stock Operations in the Central and Northern Range States and Territories.—Conditions in the Closing Years of the Seventies.—Favorable Influences of Railroad Construction and of Packing-House Development.—Awakening of the Speculative Spirit.—Attractive "Estimates."—Symptoms of an Approaching "Boom."

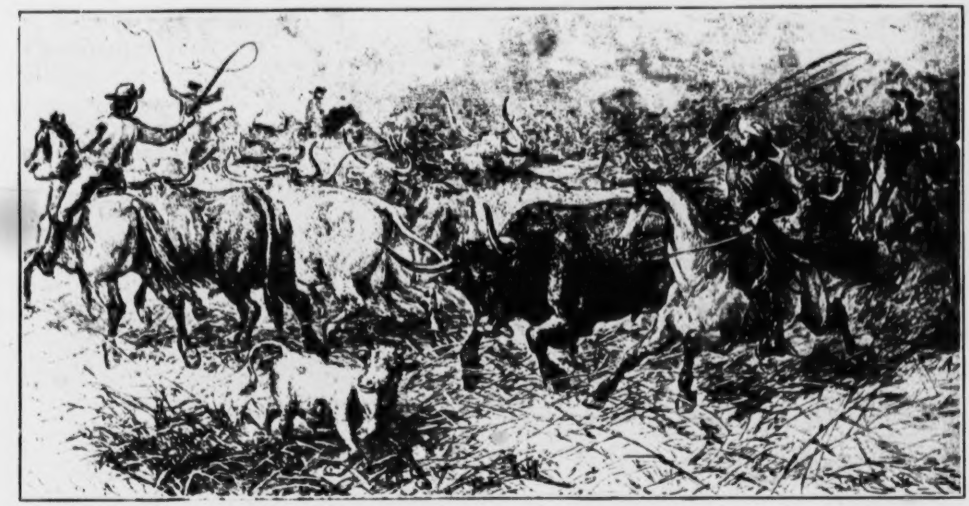
While the disasters of 1873 seemed to be more destructive to the range-cattle industry than to most other lines of business, they did not crush the life out of it, nor even long delay resumption of its development. Extraordinary vitality, and unusual hopefulness and persistence in those who follow it, have been characteristic of the occupation from the time that Americans first engaged in it. In these respects it has been compared with mining for the precious metals—the two callings developing in their followers traits of character much alike. But in the general period with part of which we are dealing here, the elements of chance had far stronger influence upon cattlemen, the speculative spirit was much more prevalent among them, and the hazards they faced were many times greater, than in the present era of steady-going, systematized, and almost rigidly business-like methods of cattle-ranch management. During the fifteen or twenty years next following the close of the Civil War there were more chances to be taken in raising range cattle than now, and while the chances for fortune-making profits were many and often turned lavish gains into the pockets of range stockmen, those for smashing losses were by no means scarce, as already we have seen. Upon the whole, the business in these times was not unlike the little girl of variable temper who figures in one of the nursery jingles: "When she was good she was very, very good, and when she was bad she was horrid."

Notwithstanding the adversities of 1873 which financially disqualified a large number of range cattlemen for continiung in their business, most of those who had passed through the ordeals of that year with lesser misfortunes, braced up at once for fresh efforts along the familiar old lines. The future possibilities of the business became attractive at that time also to many men who had not theretofore been engaged in it, and who saw plainly enough that panic conditions were not going to be of indefinite duration. Indeed, some men who rose to affluence and prominence in the industry after 1873, dated their beginning in it from their purchase of stocks of cattle during the extreme depression prevailing in the autumn of that year, when men who had ready cash could buy at next to hide-and-tallow prices.

The years 1874 and 1875 were dull ones in every branch of business in the United States, as was inevitable in a time of convalescence from the effects of such a financial shaking up as the country had received; and the producers of beef everywhere, especially those on the ranges, were not denied a full share of the consequences of such a state of affairs. The conditions in the West and the Southwest were reflected in the greatly reduced number of cattle driven north from Texas. From above 400,000 in 1873 the total in 1874 dropped to about 165,000 and in 1875 to about 150,000, consisting almost entirely of beeves ready for market and of good beef stock for further feeding and seasoning on northern ranges. In those years prices for range cattle continued low, hanging around $2.00 per hundred, and seldom rising much above this figure. However, there was a general forward movement all along the line toward occupying new grazing territory and in preparation for the better times that were coming.

Immigration in Texas steadily had forced the cattlemen of that State farther and farther west into the open-range country, where there were plenty of free grass and abundant room for operations on a larger scale than most of them previously had attained. A few Texas stockmen who had objected to being crowded and who wanted unlimited range for their herds, had taken their chances with Indians and other dangers and moved far west some years before. Among these was John S. Chisholm (or "Chisum," as his name was more commonly known), one of the famous old-time cattlemen of the State, who had been in the business since 1854, and who had removed his stock in 1862 to a section in the Concho River country near the site of the later Fort Concho. But until after the Civil War the general region of western and northern Texas remained in its primitive condition, and large herds of buffalos contineud to range over it.

New life had been given to the cattle-raising industry in New Mexico soon after the Civil War. As we have previously related, that Territory, so far as it had become occupied by white people had been a sheep-raising country from the time that the Spaniards made their pioneer civil settlements in it some 300 years ago; and Santa Fé, which is by far the most quaint town in the United States, had been a sort of live-stock market since the middle of the seventeenth century. About the time in which the United States acquired the country from Mexico, cattle-raising had become of considerable magnitude in some parts of the Territory, but until after our Civil War the live-stock business continued to run mainly into sheep—as it still does—the number of cattle, horses, and hogs raised by the people having been, to a great extent, limited to their own needs.

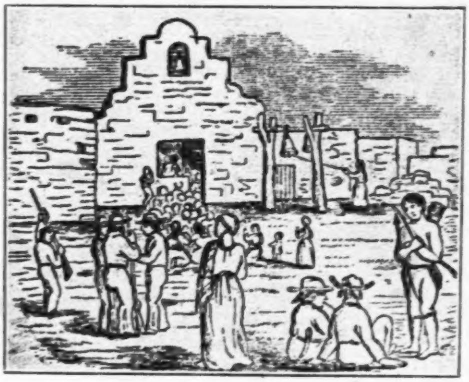


Scene on a Texas Cattle Range in 1877.
(From Brockett's "Our Western Empire.")

In 1866 Charles Goodnight and Oliver Loving drove a herd of Texas cattle up the Pecos River Valley to Fort Sumner, for beef supplies for reservation Indians at that post; and in 1867, John S. Chisum, referred to above, put a small herd of beef stock on grass near the Bosque Grande, which was the first one turned loose in southeastern New Mexico. According to a statement made by Chisum, there was not at that time another hoof of stock on the Pecos Valley range from Fort Sumner down to Horsehead Crossing, Texas. Up to 1872 Chisum's outfit appears to have been the only one on the

Pecos, but after that year he was joined by a number of Texas stockmen, and for several seasons all of them had plenty of trouble with Indians and cattle thieves.

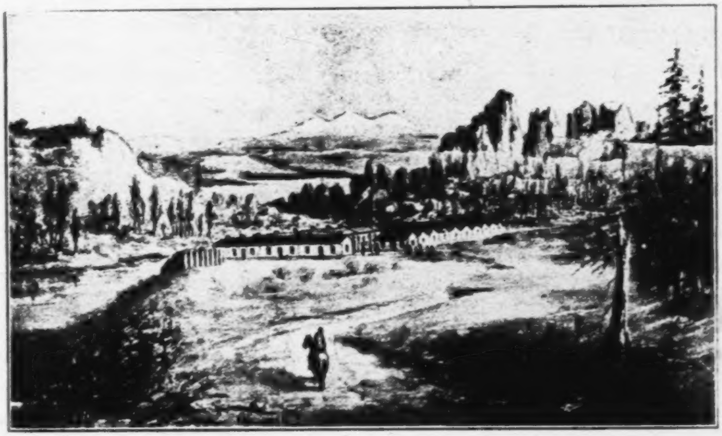
Arizona long had been generally regarded as a country "not worth while" for stockmen, but after 1873 some cattlemen began to reconsider these former opinions and to investigate. The region had been included in the Territory of New Mexico until February, 1863, when its 113,000 square miles were detached and organized as the Territory of Arizona. Jesuit missionaries entered that part of it south of the Gila River—the region that included most of the "Gadsden Purchase" from Mexico in 1853—late in the seventeenth century, and by 1720 they had a line of missions and their appendages, including the still existing St. Xavier, from Tucson southward to Tubac. In 1775 the number of missions in the Arizona country had increased to eighteen, all of which, however, were south of the Gila, and all of which, also, had large herds of cattle and sheep, especially of the latter. The hostility of the Apaches and other Indian tribes prevented further advance, and their frequent raids on the mission settlements between 1802 and 1827, added to the disorders attending the Mexican revolutionary movements, led to the abandonment of all of them except Tucson and Tubac. In 1824, some trappers from Kentucky crossed the Arizona country by way of the Gila River to the Pacific Coast, but after that we hear nothing of any Americans being in it until Mexican war times and in the years of the rush of gold-seekers to California. Those who went to the new gold-fields by way of New Mexico and Arizona followed the course of the Gila in Arizona, which also was the route of most of the California cattle-drives from Texas in the early '50's. In July, 1861, the few United States troops then stationed in the Arizona region were withdrawn, and the country was left exposed to raids by Indians and renegade Mexicans who did as they pleased with whatever they found in it. The greater part of Arizona is a broad plateau, but much of its area is poorly adapted to stock-raising, and some of it not at all; for the driest and hottest region in the United States is in the southwestern part of that Territory. A few men had started into range cattle-raising in Arizona in the late '60's, chiefly for the purpose of supplying military posts and reservation Indians with beef; driving their surplus to the California markets; but it was not until the decade of the '70's that the Territory attracted much attention as a cattle-raising country.



Old Spanish Mission at Tucson.
(*From an old print.*)

The Texans long had been familiar with the resources of the Indian Territory—most of which region was as fine a grazing country as the sun shines on in his daily course—having become well posted concerning it while following the trails to the north. Some of them had put their cattle into the southeastern part of it soon after the close of the Civil War, and others had done likewise in the early '70's. After 1873 some northern men, as well as Texans, entered the eastward sections of the present Oklahoma part of it. As business revived and made a fat steer a more and more important personage than he had been a few years before, many more of these cattle-folks, coming from both North and South, invaded the Oklahoma country with their herds, and had a good and fairly profitable field for several years; and a much better one while the great "boom" of the early '80's was booming. But, in passing, it may be remarked here, the Federal government made them pack up and get out in 1885.

While the general forward movement in 1874 and 1875 was, under the existing general conditions, a rather active one in Texas and in these southern Territories, it was even more so in the North. The cattlemen of Kansas and Nebraska, whose numbers were being increased by fresh recruits, were pushing farther into the western parts of those States, leaving the old range districts to agricultural settlers, who, again, were moving in by thousands and taking possession of the land; and in Colorado the stockmen were advancing eastward, and upon that side as upon the eastern, the belt of country that until recently had been occupied by diminishing herds of bedeviled buffalos, the last bunches of which now were being hunted down, rapidly was being occupied by new enterprises in range cattle. From all of the central plains region the Indians had been removed, and, indeed, the Indian proposition throughout the entire northern country virtually had ceased to be an obstacle, although danger in parts of Montana and Dakota from bands of Sioux was not finally extinguished until a few years later.



A Military Post on the Gila River in Arizona in the Early '70's.
(From Campion's "On the Frontier.")

In that period immense tracts of range country were opened up in Wyoming, Dakota and Montana, more of the virgin valleys of Idaho were occupied, and a considerable number of new stockmen and immigrating old ones went into Utah, and even into Nevada, in parts from which the transcontinental railroad was readily accessible. Some of the cattle-herds driven to these new pasture-lands had been gathered from ranges in the central plains region, but more of them were from Texas—which seemed always to have an abundant supply in reserve, no matter how many were taken away.

In these years Wyoming and Montana received the larger share of attention from cattlemen who were migrating from the older range sections of the West and South and between the two, Montana seems to have been preferred by a majority of those who went in that direction. The great basin drained by the upper Missouri River and its many tributaries, that stretched from the central-western parts of Dakota west to the Rocky Mountains and from north to south from the Canadian Dominion far into Wyoming, embraced immense areas of pasture-land rich in nutritious grasses. In many parts of Montana the tendency of the snow to drift left large areas of the pasture exposed, and therefore cattle usually were able to keep in good condition upon it throughout the winter without other provender, and with a small percentage of loss. While, as remarked in a preceding part of this volume, some Texas cattle were driven into Montana as early as 1867, the movement into that Territory did not attain proportions of great importance until the middle '70's. At the beginning of that decade Montana had not been impressive in the number of live-stock animals it possessed, for in 1870 it had only 12,432 milch cows, 1,761 working oxen, and 22,545 other cattle, with 2,024 sheep, 2,599 hogs, 5,289 horses, and 475 mules—a total of but 47,125 head of all kinds. But a good many new stockmen had gone into Montana, as into Dakota, before the panic year of 1873, when the speedy completion of the Northern Pacific Railroad through to the

Pacific Coast was confidently expected. This prospect for the Montana country soon having direct rail outlet to eastern markets encouraged cattlemen to secure a foothold in it in advance of the road's actual construction into the Territory; and therefore the range cattle business had become fairly well established there before the collapse, the larger part of the ingoing stock having been driven from Texas. The long trails had led through wild parts and over many waste places that were made lands of peril by bands of hostile Indians, and those who traveled them in charge of the herds, while trusting to luck or taking their chances, must have stout hearts and be well armed, for sometimes they had to defend their lives and property against Cheyenne and Sioux marauders.

The Northern Pacific Railroad Company was chartered in 1864, but construction of the road had not been begun until the summer of 1870. The line was completed to the Missouri River at Bismarck, Dakota, in October, 1873, at which point it was caught and held up by the panic of that year, of which the downfall of its own financing was the immediate cause. This resulted in a suspension of construction work on that road, as upon all others, which continued until the spring of 1879.

The panic was impartial in distributing its blasting effects among western stockmen, and therefore those who had established themselves on these far-northern ranges had no reason for complaining about being overlooked. By the autumn of 1873 their facilities for shipping beef cattle to eastern markets by rail had become nearly as good as the average from the central and southern range country generally, for it was not a very long drive to the end of the Northern Pacific's track at the Missouri River in Dakota. But, as the expense of the long railroad haul ate up so much of the emaciated panic-prices, they had little or nothing left in the form of net proceeds from their shipments; and therefore their losses were as ruinous as were those of their brethren in other parts of the range country.

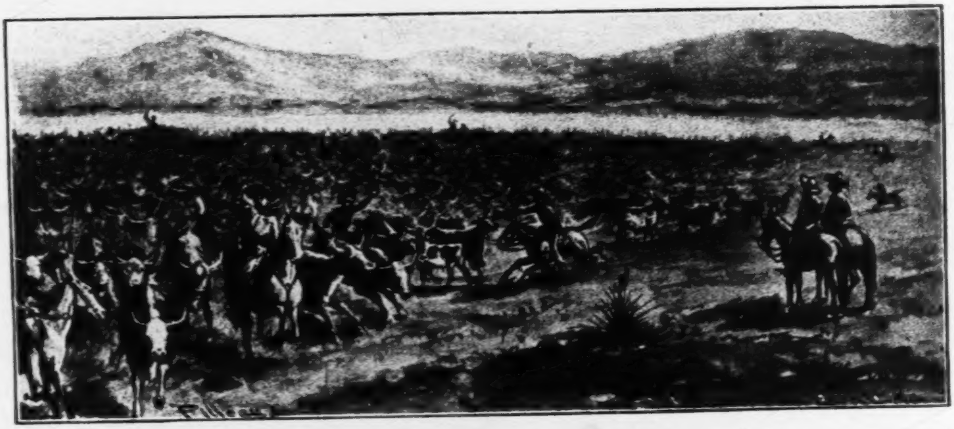
However, in the re-adjustment and revival of business affairs that were going on in the middle '70's, the movement of cattlemen into the northern Territories was continued in increasing number, with Texas men and Texas cattle occupying very prominent places in it. They knew that railroad construction into and and through the northern country would be resumed before a great while, and the former desire to become located in advance, again was exerting its influence. So they went forward over the long trails, some going direct from Texas, with rather wild-looking herds, on a journey so long that it took from mid-spring to mid-summer to cover the distance. Although Sitting Bull's memorable battle with Custer's command on the little Big Horn River occurred in the summer of 1876, the Indian proposition in the north had ceased to be a menace to stockmen before the enactment of that tragedy. While the wholesale destruction of the northern buffalos had not yet begun, the numbers of these animals in that part of the country were not proportionately near so great as those of the southern host had been.

The year 1876 opened with conditions in the live-stock trade that marked a decided turn from the depression that had prevailed for more than two years, and there was promise of a continuous upward tendency. The country at large was shaking off the lethargy due to the crash of 1873, and railway building on a moderate scale had been resumed in some parts of the West.

But the principal influence that was at work indirectly in behalf of western cattlemen at that time was the development of new features and new methods in the packing-house industry. Theretofore the markets for fresh beef from these concerns had been, in the main, local in extent, and much of their beef output was in the form of salt-cured products. Exportation of beef on the hoof slowly but steadily was attaining greater magnitude at that time, but it was so hampered by foreign real or pretended fears of various alleged infections being introduced into Europe by American cattle, and also by agitations there in favor of home production, that it became necessary for our people to devise other ways and means of getting American beef into European markets.

As invariably happens in our country, when an imperative demand arises for new ways of doing things, somebody steps forward promptly and points out the necessary, effective means by which to do them. In this case the packing-house interests quickly solved the problem by sending the foreigners prime dressed beef carcases that were above suspicion, criticism or objection; and with these went canned beef, and, as the new methods further were developed, a variety of other canned and potted beef products. New vehicles of transportation having been required for the dressed beef trade, they came forth without delay in the form of refrigerator cars on the railroads and refrigerator apartments in the ships. With these the packers at Chicago, Kansas City, and other great market centers were enabled to deliver beef carcases on the farther side of the Atlantic in as perfect condition as that in which they were placed upon the blocks of retailers within sight of the packing-houses; and with these cars to extend their home trade in dressed beef to every part of the country accessible by railroad. This new branch of the packing-house industry, which, within a few years later, became by far the larger part of it, made its influence felt strongly in 1876, and in 1877 had risen to greater proportions. Its magnitude in 1878 was reflected in the fact that nearly forty per cent. of all of the live-stock marketed in Chicago during the year, or about 500,000 head, went to consumers in the form of dressed beef from the packing-houses of Chicago. At Kansas City and other packing-house centers the dressed beef business held about the same ratio to the total number of cattle put upon their markets.

At this time, when range cattle were being raised upon free, open, and to a very large extent virgin, pastures—before the era of overstocking and trampling the great natural meadows—the cost of production was at its minimum. Freight charges made rather the larger part of the total cash expense of rearing a beef animal and putting it upon the market. There was "money in cattle," however, when the selling prices netted the producer from $2.75 to $3.00 per hundred weight on the hoof. Some Texas men are on record as having thought at that time that they had "a nice market" when they sold, as frequently they did, fat beeves from their ranch corrals around $2.25 per hundred, the buyers taking the cattle with them; and, according to other records, from $2.50 to $3.00 per hundred was "considered an excellent price" for beeves delivered on the hoof at shipping points within easy driving distances. In the summer and autumn of 1878 the monthly top prices for northwestern "rangers" ranged, with the exception of August, from $3.75 to $4.40 per hundred, reaching the higher figures in September; and for "Texans" the range was from $3.00 to $3.90,



Scene on a Wyoming Cattle Range in 1876.
(From Strahorn's "Hand-Book of Wyoming.")

the higher price being reached in June. The average for the northwestern "rangers" for the six months was about $3.95, and for "Texans" about $3.55. During the corresponding period in 1879 the Chicago top prices for the same grades were somewhat lower, the average being about $3.70 and about $3.50, respectively. Under the circumstances and conditions which prevailed in that period there was, as we have said, "money in cattle," even at such prices as these.

The turn in affairs that had become plainly apparent and assuring in 1876, and the betterment of the general situation in the cattle business that followed, justified the faith of those of the old-timers who had been financially able to stick to it, and of those who had gone into it while the shadow of panic times hung over it darkly. This brightening of prospects stimulated still further territorial expansion of the business, and also encouraged more new men to invest in cattle and become ranchmen; the greater number of these, now that the last lingering elements of danger from avowedly hostile Sioux Indians had been stamped out, going into the northwestern parts of the range country. While most of the stock for these new enterprises in that direction was driven from the central plains ranges, much of it was gathered from the farms of the Missouri River States, thus introducing a fresh element into the mass that was going to the northern ranges. The Texans drove immature beef-cattle by thousands of head into Wyoming, western Dakota, and Montana, where they were kept on pasture until they were in prime condition to be forwarded to market.

Even as late as 1876 the Texans continued to drive to railroads in Kansas, over the old trails, much of their marketable cattle, for in that year there was no railroad in Texas that extended farther west than Fort Worth, but there were several that had pushed their way to or toward southern Kansas, while the Atchison, Topeka & Santa Fé road had been completed to the Colorada line and opened for business in December, 1872. By 1876 Kansas City had become an important stock-market as well as a packing-center of great magnitude, with ample railway facilities for reaching the markets of St. Louis and Chicago. The northward drives out of Texas in that year—market cattle and swarms bound for the northwestern ranges—aggregated about 325,000 head, or much more than twice the number that had been put on the trails during the previous year.

Green River City, Wyoming, in 1876.
(From Strahorn's "Hand-Book of Wyoming.")

As we have mentioned on an earlier page, the immigration in Texas and the westward advance of agricultural development of the lowland parts of the State that long had been used for cattle-ranges had been crowding the stockmen farther west year by year. But as late as 1876 there were immense areas in the western and northwestern parts of the State's vast domain that still remained in their primitive condition, with small herds of hunted buffalos scattered over the country and doing their best to escape the attention of remorseless hunters who were following them diligently and killing them off as fast as they could. While some adventurous stockmen had previously gone into central and southwestern Texas, in 1876 there were probably not 3,000 white people in the whole region between the Eastland-Stephens-Young-Archer-Wichita tier of counties and the eastern line of New Mexico, with the Panhandle thrown in. This great expanse of country has had a truly wonderful development in recent years, but at that time most of it was not regarded as being a land of great promise. These later westward movements had located herds of cattle along many of the water-courses, and there were some sheep scattered here and there on the drier uplands, where there was a shorter growth of herbage; the sheepmen, however, being so few in number, and the abundance of grass and water so p[illegible], that their near presence was tolerated by the cattlemen, and therefore the two usually hostile interests got along together with but little friction for several years.

Texas is so large, and from the beginning of its career as a State of the Union has been so prolific of cattle, that even in the times when only a minor part of its huge domain had become occupied, it produced them in total numbers that were amazing. Up to the period under discussion here, its cattle ranges, generally speaking, had been within the eastern and southern two-fifths of its area, for in 1876 there were not more than thirty or thirty-five cattle ranches that were conspicuous as to size in the central, western, and northern parts of the State; an area, thus roughly defined, that contained upward of 130,000 square miles, and which now embraces some ninety counties, many of which have been organized in late years. Most of these larger ranches had been located pretty well toward the western side of the State, but many miles apart, and the owners of some of them had laid claim to ranges greater in extent than the State of Delaware. Chisum's old ranch on the Concho River near Fort Concho was one of the very large ones; but there were four—the Townsend, the Hittson, the Black, and the Lynch outfits—in the section of which Eastland County is a part, for which "range rights" were claimed over a scope of country close to 100 miles square, or about 10,000 square miles of rich natural pasture-land—an area nearly equal to that of the States of Massachusetts and Delaware combined. Fenced ranges were unknown there, and the supply of free grass practically was unlimited. Ranch supplies for most of the outfits had to be hauled by wagons hundreds of miles, communications with the outside world were infrequent, mail was received at long intervals, and the greater part of the market stock was driven northward.

However, the Texans had not thought it worth while to try to do anything in the Staked Plain country, that in later years, with the cooperation of wind-mills for pumping water from wells, became, as it still remains, the feeding-ground of many thousands of cattle. From early times this plain had been regarded as forming the most forbidding of the "show places" of the fabulous "Great American Desert," and therefore it had acquired an evil reputation, singularly out of proportion to the facts. Even as late as the period of the '70's, it was commonly held to be "a blizzard-belt in winter, and a sand-belt in summer" that was a separating barrier between Texas and New Mexico, and altogether worthless for any other purpose. In those days there was no such thing as a wind-mill in use for supplying stock-water on the range, and all districts without running streams within them or within practicable driving distance, were dangerous land for live stock; but the Plain formed the only extensive district in Texas in which there was a lack of surface water in ordinary seasons.

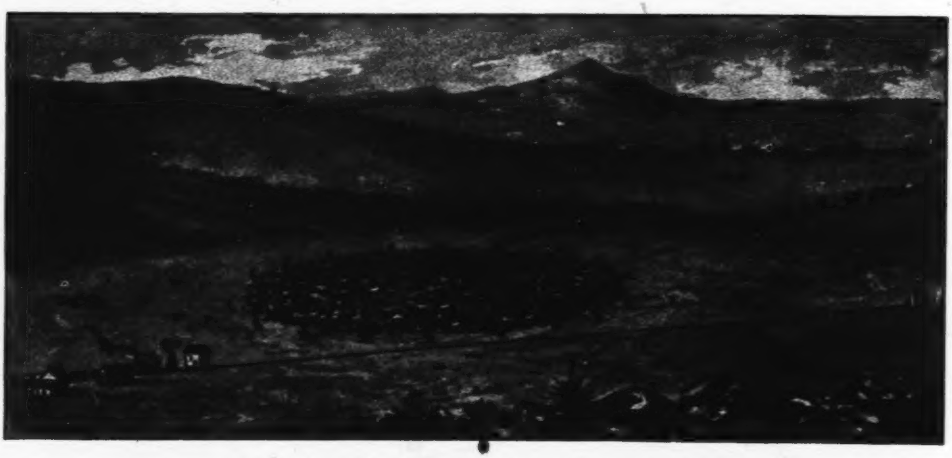
In the further occupation of the Pecos River Valley in New Mexico, which was going forward briskly in these times, crossing the Staked Plain was avoided by driving the stock into the valley either around the southern limits of the Plain or through the Canadian River country to the northward; the outward-bound cattle usually following the same routes.

The increasing activity in the range-cattle industry after 1875 soon led to a rather general occupation of the plains pasture-lands in western

Nebraska, western Kansas, and eastern Colorado. From these parts the buffalos virtually had disappeared, there being only a few small bunches of them lingering in the more remote sections and awaiting the fate that was closing in upon every scattered remaining remnant of the recent great "southern herd." All of the range country in these States was easily accessible from railroads: the Union Pacific centrally traversing nearly the whole of Nebraska from east to west, while Kansas had the Kansas Pacific clear throguh its northern half and on to Denver, and the Atchison, Topeka & Santa Fé through its central-southern part; the latter having been completed to Pueblo, Colorado, in 1876.

The range cattlemen of Kansas and of Nebraska had been pressed harder by farmer immigrants than had those of any other part of the country. The agricultural occupation previously had become general over about one-half of Nebraska, and over more than one-half of Kansas, and now that it had advanced to the eastern border of the semi-arid plains region, the farmer settlers began to take possession of valley lands along the more important of the water-courses, and were crowding the stockmen back upon the uplands and on the hills. Similar forces had been at work in Colorado, also, but in that State they were limited in operation, as they have since continued to be, to small areas lying upon or very near to the South Platte and Arkansas Rivers and a few smaller streams, from which a supply of water for irrigation could be depended upon with a reasonable degree of certainty.

The accessibility of Nebraska, Kansas, and eastern Colorado by railroad led to a division of the plains country within their borders among proportionately a larger number of cattlemen, and therefore the ranges generally were smaller in these States than in Texas, Montana, and other parts of the great natural grazing region; none of them ever being comparable in area with the larger of those elsewhere. Furthermore, in the common run, the pastures were much inferior to those of central Texas, and not so good as were found in the better parts of Wyoming and Montana.

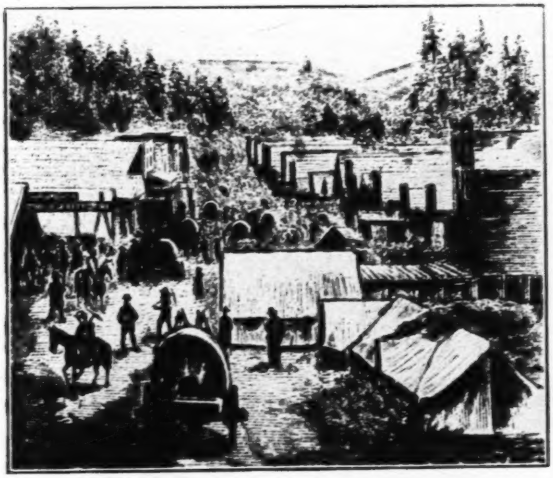


Scene on the Kansas Pacific Railroad at River-Bend, Colorado, in 1873.
(From McCoy's "Sketches of the Cattle Trade.")

In Utah the general conditions were different, and, in consequence of the early settlement of the country, most of the better lands long had been under cultivation by irrigation. Much of the remaining area was unfit for cattle, the principal range districts being in the northern part of the Territory. But, while sheep-raising was rapidly increasing in importance and the sheepmen were appropriating more and more of the range feeding-grounds, the cattle industry in Utah shared in the general revival of activity that was in progress all over the West in that period; the old stocks being reinforced by a large number of outside cattle, many of which were driven from Colorado.

Nevada also received further attention from cattlemen, but its narrowly limited resources for their purposes, and dependence upon the cities of California for a market for mature stock in competition with cattle raised in that State, did not afford very many opportunities for extensive operations.

But it was in the Territories of Wyoming, Dakota, Montana, and Idaho that the greater field for the extension of the range stock-raising industry was open. All that had been done previously in these Territories was, in comparison with the extent of the still unutilized resources of the vast grazing regions they embraced, but little more than the beginning of their occupation by stockmen.



View in Deadwood, Dakota, in 1876.
(From Strahorn's "Hand-Book of Wyoming.")

The buffalo grass of Wyoming had been found to be exceptionally nutritious and to produce rapidly a high grade of beef; it having been asserted that a Texas-bred full-grown steer would increase in weight 400 pounds in one year when put upon Wyoming ranges, and that an average weight of 1,550 pounds gross easily could be maintained for the run of beef steers considered ready for market. According to the following from Volume I. of the "Collections of the Wyoming Historical Society" (1897), the pasture-value of Wyoming grass, especially in winter, was somewhat late in being discovered:

"The discovery of the capabilities of Wyoming for grazing purposes is said to have been accidental, and is thus described: 'Early in December, 1864, a government trader with a wagon train of supplies drawn by oxen was on his way west to Camp Douglass, in the Territory of Utah; but on being overtaken on the Laramie Plains, Wyoming, by an unusually severe snow-storm, he was compelled at once to go into winter quarters. He turned his cattle adrift, expecting as a matter of course that they would soon perish from exposure and starvation; but they remained about the camp, and as the snow was blown off the highlands the dried grass afforded them an abundance of forage. When the spring opened they were found to be even in better condition than when turned out to die four months previously.' "

In Dakota the general conditions were less favorable, although in many parts they were very good from an experienced cattleman's point of view. Generally the grass was shorter and of thinner growth, and there were numerous broad stretches of land on which alkali, cactus, and sage-brush were in command of the soil to the exclusion of nearly everything else. The open-range districts of Dakota were, in the main, in the western half of the Territory, the farming interests already having become dominant over much of the land east of the Missouri River and in the region drained by the Red River of the North and its tributaries. However, for these deficiencies in the Dakota pastures there was some recompense in the more than ordinary nutritive strength of their grasses, either when green or in the form of naturally-cured standing hay. The better sections for cattle-ranging in the Dakota country were in the general northwestern parts of the present State of South Dakota and in those of North Dakota that lie south and west of the course of the Missouri River that roughly defines a quarter-circle through that State.

The pastures of Montana averaged better than those of western Dakota, although the general aspects of the entire region that forms the great basin of the upper Missouri are much the same. Many range cattlemen of the central and the southern districts who had not become familiar with the experience of their brethren who were pioneers in the cattle business in Montana in the earlier years of the '70's, were apprehensive of the effects of the cold winters that they attributed to that Territory, and believed it was too far north to take cattle that had been bred in the southern parts of the country. But these views had been proved mistaken; the winters in Montana, taken year by year, being nearly the same as in Wyoming and northern Colorado, and the losses due to winter conditions had, with the exception of some extremely severe seasons, not been greater than the average of those to which range stockmen farther south had become accustomed—the numerous ravines, small cañons, and sheltered valleys affording much natural protection from storms. Furthermore, southern-bred cattle on Montana ranges had been found to undergo a marked and very satisfactory improvement in general good qualities that would give them a higher standing in eastern markets, while the annual expense per head incident to holding them on range was below the average, being with some herds as low as seventy-five cents, and as a general proposition less than $1.00 with the others.

Of the four Territories under consideration here, mountainous Idaho, now a great sheep State, stood at the foot of the class so far as affording opportunities for extending the range-cattle industry was concerned. While most of its grazing-lands were in river valleys, many of the foot-hills afforded from fair to good pasturage. Large areas of the valleys, however, being overrun by sage-brush, had their grass crops seriously curtailed, and therefore much of the land along the water-courses was better adapted to sheep than to cattle.

From 1876 to the close of that decade, there was, as we have said, a forward movement in the range-cattle business all along the line from the Mexican border to the Canadian Dominion; cattle by the thousands being put on free grasses in new parts of the immense grazing regions of the semi-arid plateau, and many new ranchmen having their introductory experiences in a life that was not lacking in strenuous features. Cattlemen seemed to be going everywhere with their herds, and it also seemed that the entire range country soon would be overrun by them. But there was such an enormous area of pasture-land that varied in quality from good to poor, lying open to them, that they could choose ranges for their stock in the better parts and still leave great but less desirable districts to those who might come after them; for never, in modern times, did so small a number of men have, under favorable circumstances and conditions, so much of the earth's surface open to their purposes as was available to the range-cattlemen of that period.

By 1880 the range country as a whole commonly was thought to be pretty well "occupied" by stockmen, notwithstanding that there were large areas in most parts of it that still remained unused. Up to that time range cattlemen, especially those of the southern and the northern grazing districts, had cherished very broad views as to the length and breadth of land required for "elbow room," and many of them, in addition to all that they possibly could use for their herds, considered it desirable to have a sort of "neutral belt" between their ranges and those of their neighbors. Furthermore, the "occupation" of a large area of country by these cattlemen did not by any means imply the presence in it of a thick population. In proportion to the extent of its operations and to the magnitude of its results, the live-stock business on the ranges always has been carried on by a surprisingly small number of people, counting only those directly engaged in it. Heretofore we have referred to the extreme thinness of population in the range country of central and western Texas as late as 1876; and for another example of similar conditions we will turn here to a region in the Far North. Custer County, in the southeastern part of Montana, embracing 26,580 square miles—about two-thirds the area of the State of Ohio—of which Miles City is the county seat, was, in 1880, regarded as being "occupied" as a stock-growing district; but, according to the census of that year, it had a population of only 2,510, which, of course, included the inhabitants of Miles City and the few other towns within its borders; many of these people being mere parasites on the live-stock business in that part of the country.

Resumption of construction work on the Northern Pacific Railroad in 1879 gave a tremendous impetus to immigration in the northern country, and also to the range-cattle industry in the great basin of the upper Missouri River where many Eastern men made investments in it. Work on the road was prosecuted continuously with remarkable energy, the line being opened for business to its crossing of the Little Missouri, in the western part of the present State of North Dakota, in September, 1880; to Miles City early in 1882; to Billings in August of that year; and through to the coast in September, 1883.

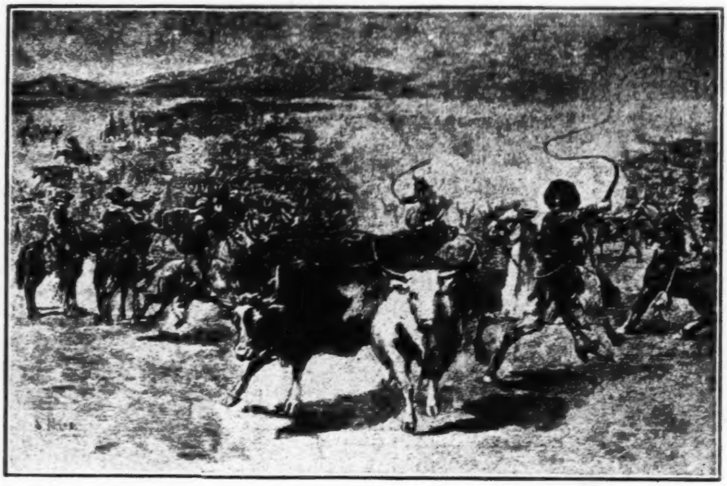
View in the Valley of the Yellowstone in 1879.
(From Winser's "Great Northwest.")

In the central and the southern parts of the range country various railroad enterprises, some of which were being made realities, while others yet were on paper, but with good prospects for an early emergence from that condition to one more tangible, were preparing in the closing years of the '70's to open long lines of quick communication through regions which many pioneer cattlemen had supposed would remain forever undisturbed by the locomotive. At the close of that decade, stock-raising, almost wholly of cattle and sheep on the plains, and mining for the precious metals in the mountains, were the two industries upon which, either directly or indirectly, nearly all of the people in the great semi-arid region of the West, excepting part of the Mormon population of Utah, were dependent. Such agriculture proper as had been developed within the vast grazing districts was confined to narrow areas comparatively of insignificant extent along some of the more important streams, and its results cut a small figure in the presence of the products of the two great industries of the country.

The growth of the range-cattle business and its territorial extension during the last four years of the '70's had been upon a sound basis and without any sensational features. The country at large had returned to conditions of prosperity, with its paper money elevated to the plane of truthfulness, and the prospects were excellent for a long period of profitable activity in every avenue of progress. As stated on a preceding page, prices for market stock in the late '70's had ranged from fair to good for beef cattle raised on the free grass of the western plains, and gave their producers a reasonable profit. In 1880 they were higher than in 1879, the average of the monthly top prices at Chicago during the selling season of that year for northwestern rangers being a little above $4.00, and for "Texans" about $3.85; figures that meant about $60.00 gross for an average well-matured beef steer from the Northwest, and upward of $50.00 for one hailing from the Southwest.

The packing-house industry had rapidly continued its remarkable development, and, beside supplying a large part of the beef sold in the retail markets east of the Mississippi River and thus reducing the production of beef cattle in the localities of these markets, it was pushing its various products farther and farther into foreign countries. In 1880 above 2,000,000 head of beef cattle were marketed, and at that time the three great stock markets of the country were Chicago, St. Louis, and Kansas City, with Chicago dominating over all—a position which that city has maintained from the inception of the packing-house industry.

The natural increase of range cattle in the years of "free grass and an open range" was represented by most attractive figures that stood for large profits, if everything went well; but, as cattle-life under such conditions really was a sort of half-wild one, the increase could not be so great as among the same number of animals left to breed without restriction in the placid routine of life upon farms. In the live-stock literature of the period we have here been considering, this matter of increase in range herds frequently receives attention and elaboration. Of these, the following is a fair example, based upon the presumption that all of the estimated female progeny survived and bred regularly:



Scene on a Montana Cattle Range in 1879.
(From Winser's "Great Northwest.")

"If one hundred cows and their female progeny be kept at breeding for ten years, the result would be as follows, estimating that forty per cent. of the cows would have heifers which would, beginning when two years old, in their turn have—

100 cows in first year drop	40
100 cows in second year drop	40
140 cows in third year drop	56
180 cows in fourth year drop	72
236 cows in fifth year drop	94
308 cows in sixth year drop	123
402 cows in seventh year drop	161
525 cows in eighth year drop	210
686 cows in ninth year drop	274
896 cows in tenth year drop	358
Total, ten years	1,428

"The number of bulls would be the same as that of heifers. From the above an idea can be got of the rate at which capital increases in the live-stock business on the plains, where the cost of keeping a beef from birth to maturity is less than six dollars."

Another statement made in that period will be of interest to present-time stockmen, not for its historical accuracy, but for the remarkable results which can be produced on paper when the operator entirely overlooks an important adverse factor in the proposition:

"Cattlemen say a herd will double in seven years by natural increase, and during that time enough beef will be sold out of it to pay the expense of running it and nearly enough more in addition to cover the original investment. One-twelfth part of a herd is sold for beef annually; and the annual yield of calves will amount to about one-fourth the number of animals in the whole herd. That is, a herd of one thousand animals will amount to two thousand in about seven years. The calves would amount to about two hundred and fifty the first year, increasing from year to year as the herd grows. The number of cattle sold for beef the first year would be about one-twelfth of one thousand, or eighty-three; and this number will increase from year to year. In this way stockmen estimate their material prosperity on paper; but sometimes the paper loses its value by the severity of an unusual winter, the prevalence of cattle disease, or the ravages of grasshoppers.

"Four-fifths of a herd of cows will bring the owner a calf annually until the cows are twelve years old, if kept so long. A single cow is the mother of one calf at three years of age. At four she has two, the first a yearling. At five she is the mother of three calves, the oldest two years. When the mother is six, she has four children and one grand-child, her oldest calf becoming a mother herself. At seven she has five children, and three grand-children; for the oldest daughter has her second calf, and the next daughter in age has her first calf. At eight, the grandmother has six children, six grand-children, and one great-grand-child—the whole family numbering fourteen; for her oldest calf has her third calf, the next in age her second, and the third in age her first, and the first grand-calf has a calf also. At nine the original cow has seven children, ten grand-children, and three great-grand-children; for her oldest calf has her fourth, the second in age her third, the third in age her second, and the fourth in age her first; the first grand-calf has her second offspring, and the second grand-calf her first.

"There are twenty in the family now. At ten the original cow has eight children, fifteen grand-children, and six great-grand-children; for the first calf has her fifth, the second in age her fourth, the third in age her third, the fourth in age her second, and the fifth in age her first; and the first grand-calf has her third offspring, the second her second, and the third her first—twenty-nine in all. At eleven the cow has nine children, twenty-one grand-children, ten great-grand-children, and one great-great-grand-calf; for her oldest calf has her sixth calf, the next her fifth, the next her fourth, the next her third, the next her second, and the next her first; and the first grand-calf has her fourth, the next her third, the next her second, and the next her first; and, also, the first great-grand-calf has her first, the fifth generation.

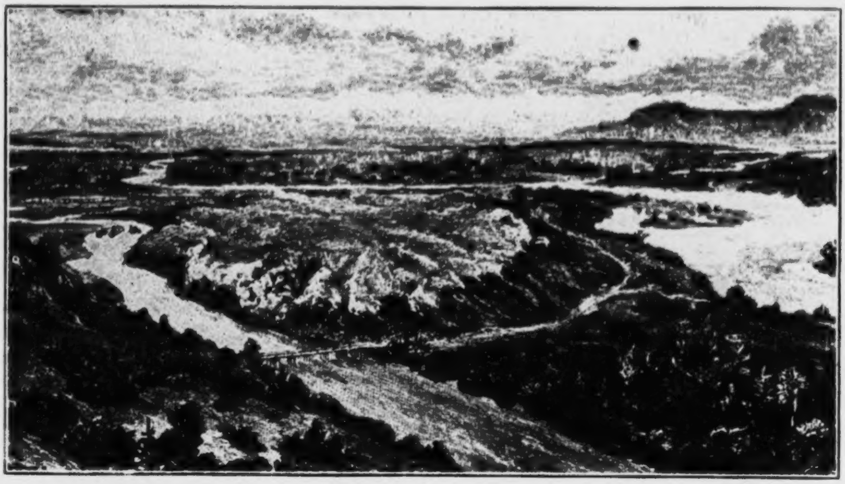
"Now the family numbers forty-one. At twelve, the maternal ancestor has ten children, twenty-eight grand-children, fifteen great-grand-children, and three great-great-grand-children; for her first calf has her seventh, the next her sixth, the next her fifth, the next her fourth, the next her third, the next her second, and the next her first; and the first grand-calf has her fifth, the second her fourth, the next her third, the next her second, and the next her first; also, the first great-grand-calf her second, and the next her first—a family of fifty-six.

"Five generations—ten of the second, twenty-eight of the third, fifteen of the fourth and three of the fifth. By this time the mission of the original cow ought to be considered accomplished, and she be allowed to die a natural death, if she will, although it is more probable that, after making herself the source of such a marvellous income to her owner, she will close her earthly career in some busy mining-camp, where corned beef is reckoned as the staff of life."

If all this had been true, the range cattlemen of a quarter of a century ago would have been so rich that there could have been no living in the country with them. They would have taken it all to themselves, and the rest of us would have had to hang on to the edges as best we could. But it was not true, and no doubt it was better for most of us that it was not.

William M. Thayer, from whose "Marvels of the Great West" the foregoing cumulative "estimate" was taken, says of it, by way of comment:

"There is one serious trouble, however, with the foregoing figures. The estimate is based upon the supposition that the cow's progeny are all females. To this date, however, by no artifice or persuasion have stockmen been able to make their cows bring them all heifers. We have no doubt that they would if they could. This is one of the few things in which cattlemen have been baffled; their cows will bring forth about one-half males, in spite of any coaxing, fixing, or blasphemiug. Nevertheless, the foregoing estimate will serve a good purpose, without reflecting at all upon the cow; for, after making due allowance for her male progeny, her family will number about thirty when she is twelve years old; and this ought to satisfy reasonable stockmen, since five thousand cows could show even at this rate, one hundred and twenty thousand animals in twelve years, though but four-fifths of their number became mothers, none die, or are killed."



A Montana Landscape—Three Forks of the Missouri; the Gallatin, Madison, and Jefferson Rivers, in 1879.
(*From Winser's "Great Northwest."*)

Harper's Magazine for November, 1879, contained a review of the range-cattle business as it appeared in that year to the writer of the article, Mr. A. A. Hayes, Jr., who represented it as being the most profitable business then open to men of moderate, or even of small means. Of the amount of capital with which a start could be made in it, he said:

"It would hardly be advisable to begin an independent business with less than five thousand dollars, of which three thousand would be invested in stock. It is common for men employed by owners to have a few cattle of their own, which range with their employers', and in this way they sometimes get quite a little property together, and are enabled to start on their own account. On the other hand, the profits on a large herd increase in greater ratio than the expenses. * * * "

The writer then proceeded to demonstrate what could be done by an individual or a company provided with a liberal amount of capital invested in a cattle ranch in the central plains region. His investor has $150,000 and spends $50,000 in buying outright 10,000 acres of land and in equipping it ready for business, and using $76,000 for the purchase of stock. By an elaboration of figures, not necessary to repeat here, he shows for the first three years' operations the results set forth in the following "balance sheet":

Assets:

Ranch, with 3 years' appreciation, at 10 per ct. . .	$65,000
5,400 cows, at $18.	97,200
80 bulls, at $50.	4,000
1,400 two-year-old heifers, at $15.	21,000
1,890 yearling heifers, at $10	18,900
1,400 three-year-old steers, at $26.	36,400
1,400 two-year-old steers, at $16.	22,400
1,890 yearling steers, at $10.	18,900
Total.	$283,800

Liabilities:

Capital put in ranch.		$50,000
Capital put in stock.		76,000
Capital used in expenses.		28,149
Profits on stock, 3 years	$114,651	
Profits on ranch	15,000	$129,651
Total		$283,800

"No allowance," Mr. Hayes says, "need be made for depreciation of stock, as the cattle can with proper care always be sold for beef. If the profits be invested in cattle, they will be largely increased. No account is taken of interest on profits. No account is taken of the gradual improvement in the quality of the stock. Profit can often be made by buying cattle and keeping them for a year. During the latter part of the winter and the spring the food is of course poorer than before, and as the cattle are not then in the best condition, there is much demand for good beef for local consumption."

"A risk to be taken into account would be a possible outbreak of disease at some time, but out of profits as shown an insurance fund could readily be created. That so many cattle will be raised that prices will greatly fall need not be a matter of present fear; for, leaving out two most important factors—the great and increasing demand for our beef in Europe, and the new uses to which it is put in this country—our population has hitherto increased faster than the supply of good meat."

At the close of the decade of the '70's the live-stock business in the West, after years of "ups and downs" was in a properous condition, and, while some men engaged in it were making money at somewhere near the rate "figured out" by Mr. Hayes, such opulent returns were not the common rule. The business then was attracting attention farther away than it ever had before, and our older stockmen will remember that many and many such fair-weather-and-rising-market "estimates" and "calculations" were being formulated and distributed upon the assumption that theory and practice on the range were one and the same thing. These older men of the range also know that the business then, far more than now, was, from its very nature and from the conditions by which it was surrounded, exposed to adversities, the results of which could not easily be reduced in advance to the form of "calculations" or "estimates." Off in the East, then as now, lurked the cold-blooded tyrant commonly known as "Supply and Demand," who might "change his mind" at any time, with or without warning, and quite without regard to consequences "out West." No one could foresee what Old Sol might do with the pastures the next summer, nor could any one foretell how large a tribute the winter Storm Demon would demand when next he came whooping and howling out of the North, sealing up the pastures under snow and ice, and freezing the starving cattle. These forces of Nature had made heavy levies upon range-herds before 1879, and they did it afterward, too.

The average range stockman of a quarter of a century ago was no such "favorite son" of Fortune as Mr. Hayes' "balance sheet" might seem to imply. His profits represented hard and rough work and plenty of it, the staking of his capital, and energy, business ability, faith, and hopefulness; duties and qualifications that still are essential to success in the industry.

In 1879 ordinary range stock-cattle were held at no such prices as those specified in the "balance-sheet" that we have quoted above, for the mass of range cattle was at that time still of a grade that commonly was considered to be that of ordinary. However, as this particular matter figures upon later pages of this volume, we shall not further dwell upon it here.

While, as we have seen, the stockmen of the western ranges had greatly broadened the field of their operations and largely had increased the magnitude of their business between 1873 and 1880, this had gone on without any sensational circumstances in markets, free of purely speculative features, and on a sound basis. But now their industry was upon the eve of a period of a few years' duration in which recklessness, and haste to get rich quickly, that usually characterizes financial "booms" of every kind, held sway, and which, also, as they usually do, in this case brought demoralization upon the industry and disaster to many men who were engaged in it at the time the bottom fell out—as the reader shall find related in an afterpart of this volume.

William Powell.

A study of cattle breeding opens up one of the most interesting subjects that the inquiring mind can follow. It covers a period in the course of its modern development, of more than a century, and illustrates in an astonishing degree the power of the human mind to improve upon the ordinary course of nature. Tracing the growth of the Hereford breed of cattle, the student finds that he is entering upon an extensive field which has attracted many of the profoundest intellects the breeding world has known. Beginning with the Tomkins family of Herefordshire, England, and continuing to the great Hereford breeders now living in America and England, the list is resplendant with names that could have succeeded in any important undertaking that engaged their attention. By long, continued, conscientious, painstaking, scientific breeding, the Hereford has become one of the world-favored beef breeds of cattle, winning praise from competent authorities as a grazer and also on account of quality and quantity of meat produced.

The beauty of the Herefords—the "White Faces"—always attracts an admiring throng of sight-seers at live-stock exhibitions, and seldom, indeed, does a cattleman who begins with Herefords allow the fires of his enthusiasm to grow less from lack of fuel. This may be said also of other acknowledged leading breeds; for there is a sentiment connected with cattle-breeding which becomes a part of the very life of the breeder; without it there would be no charm in the business. It is this sentiment that makes the breeder one of the most interesting men to meet in the world, especially when in the presence of his herd, every animal of which is individually known to him from the day of its birth. The breeder not only knows the pedigree of each calf of his herd, but he is thoroughly informed as to the strong and weak points of each animal, and figures out in his own mind its possibilities. To do this correctly requires rare judgment, close discrimination, trained habits of observation, a vast amount of patience, and a love for the work which lightens every labor and lends a zest to every step in the endless progression towards the ideal.

The breeder is the genius of the industry; he is the prophet, the priest, and the king of the live-stock world. It is his patience, his faith, his inspiration, that illumines the path which ultimately leads to the to the perfect way!

William Powell, of Channing, Texas, is a born live-stock breeder. Fate left Mr. Powell no choice in the matter. The question of his vocation was settled before he saw the light of day. He was born in Arkshire Court, Herefordshire, England, the home of the Herefords, the center in which the first great Hereford cattle were developed, and from which the world has drawn its Hereford blood. Upon the maternal side, Mr. Powell traces his lineage to the Tomkinses and on his father's side to Styles Powell, one of the very early breeders, and a member of the committee issuing the Hereford Herd

Book. The father of William Powell was a farmer and stock-raiser, and the son was religiously instructed in all the knowledge of Hereford breeding, as exemplified on the Powell homestead during the middle period of the last century. Mr. Powell was born December 12, 1839, and remained upon the farm until he was twenty-seven years of age. From his youth he handled live stock and visited live-stock shows, while at the same time carrying forward the operations of the farm. At his home in Channing is to be seen a silver cup which he won many years ago in a plowing contest in Herefordshire against seven competitors who appeared from various parts of the country. Similar contests have become popular in some regions of our own country. Mr. Powell was thoroughly educated in farm and live stock operations, and for several years after he became of age was in charge of one of the farms owned by his father. He also held the government position of overseer, equivalent to that of tax-collector in the United States; but, like many thousands of ambitious young Englishmen, he decided that he would seek his fortune in some less thickly settled region of the world, where opportunity for a wider field presented. Australia held out alluring promises to sons of English farmers, and Mr. Powell decided to embark in the great steamer, *City of London*, which sailed from Liverpool for Australia in the spring of 1866. An unexpected obstacle prevented his taking passage. Being a financial officer of the government, Mr. Powell was under bond, and it was necessary to have his bondsmen released before he could leave England. The ship departed while the formalities were being concluded.

It was fortunate for William Powell that he was prevented from taking passage in the *City of London;* the magnificent vessel was wrecked in the Bay of Biscay, and every soul on board was lost except a little child and eight members of the crew. Providence destined William Powell to become one of the pioneer live-stock breeders of America. At Beecher, Illinois, as manager of the T. L. Miller herd of Herefords, Mr. Powell thirty years ago, caused the attention of many lovers of thoroughbred stock to be attracted to the Hereford, and demonstrated the practical value of his early training. During the period that has since elapsed the name of this veteran breeder has become world-wide, and no man stands higher among the numerous Hereford fraternity than William Powell. He has devoted his life to the development of the noble strain that first engrossed his interest, and he has earned a permanent historical position among the greatest of Hereford breeders.

Within three days after he was released from his office under the government, Mr. Powell was aboard an Atlantic liner, and on the 9th of May, 1866, the vessel left Liverpool for New York. The promptness with which he acted upon a change of plans was characteristic of Mr. Powell. Many times in his life he has found it important, owing to sudden developments, to proceed upon an entirely different line from the one he contemplated. He has immediately changed his plans and proceeded in the new path without questioning his judgment. The result has almost invariably justified the course, thus indicating the superiority in many instances of the intuitive powers over the powers of reason.

For four years after reaching America Mr. Powell lived in Ohio. He located at Pittsfield, where he acquired a half-interest in "John Bull," a noted Hereford bull of the day, and developed a small herd of Cotswold sheep. In the meantime the reputation of Mr. Powell as a breeder attracted the attention of T. L. Miller, then an insurance solicitor of Chicago. Mr. Miller owned a farm near Beecher, Illinois, and decided to open a cattle-breeding establishment. It was in the beginning of the establishment of the great breeding farms of the central States, and Mr. Miller invited Mr. Powell to take charge, giving him authority to operate the farm according to his own ideas. Mr. Powell visited the spot, convinced himself of the eligibility of the location, and accepted the offer. The herd was started as the Miller & Powell herd. The celebrated Beecher farm was opened with five head of cows and two bulls, the first string of Herefords west of Ohio. Mr. Powell brought with him to Beecher forty head of thoroughbred sheep, but he soon disposed of them.

The experiment of a Hereford breeding farm early in the '70's so far West as Illinois attracted a great deal of comment among live-stock men and not a few confident prophesies of failure.

The Hereford was so little known that when Mr. Powell appeared at a live-stock exhibition at Indianapolis, Indiana, and applied for permission to enter he was flatly refused.

"We were tied out under the trees," said he, "and it was evident that the men in authority had decided that we were to take a back seat. The superintendent of the exhibition told us he had no room for our cattle, although right before us were sixteen stalls unoccupied. I decided to stay on the spot and to show under the trees. The injustice of the situation was so plain that on the following Monday morning we were ordered into the show. The man who refused to give us room, in a few years became a prominent Hereford breeder. There was for years an intense prejudice on the part of Shorthorn breeders against the Herefords, but gradually a broader sentiment has prevailed, and to-day every intelligent breeder recognizes points of superiority in each of the great breeds. It is now a friendly rivalry, in which genuine merit and adaptability to certain conditions are the governing features."

The Beecher farm brought into public notice several great animals, among which may be named Sir Charles, a magnificent type of Hereford, weighing over 2,600 pounds and a noted prize-winner; Dolly Varden, the dam of Success, at three years and eight months weighing 1,886 pounds; Beauty, a show Hereford, that elicited unstinted praise wherever exhibited; also Dolly Varden V., and Success II., imported by Miller & Powell. The firm was offered $20,000 for Success.

Mr. Powell entered upon a series of show-ring exhibitions which he continued for eighteen years, requiring his presence at nearly all the live-stock centers of the United States. He gained a wide acquaintance with live-stock men, and as he has also through life been a constant reader of the best publications upon subjects pertaining to breeding, he has allowed no improvement in the work to escape his attention.

At the close of four years' association with Mr. Miller, Mr. Powell resigned, and opened a breeding farm of his own, four and one-half miles west of Beecher, which he named the Poplar Farm. Here he maintained his principal headquarters for twelve or thirteen years, supplying registered animals for patrons in many States, and accomplishing important service in advancing the Hereford in the estimation of the general public. He was one of the founders of the American Hereford Cattle Breeders' Association, and was one of the three auditors of the first American Hereford Herd Book. It was from his farm that some of the principal Hereford breeders of America selected stock with which to start their herds.

In 1886 Mr. Powell's health required a change of climate, and he visited Texas, taking with him a number of his finest cattle. His reception in Texas was so cordial, the outlook of the State so bright, and the effect of the climate upon his health was so encouraging that he decided gradually to withdraw from Illinois and establish himself in the great Southwest. He associated himself for several years with B. C. Rhome, and afterwards operated a thoroughbred establishment for three years at Childress, Texas. In 1888 he acquired a large land-holding at Channing, and transferring his cattle to that place began building up the Hereford Home Herd. The Hereford Home Herd of thoroughbreds is one of the largest of the kind in the United States, and ranks with the best in regard to standard. At the opening of 1904 this herd numbers over 800 animals, but Mr. Powell expects to reduce the number, as 500 registered animals is as many as he desires to carry at one time. The ranch covers 12,000 acres. It is located directly on the Fort Worth & Denver City Railway, and was selected with special reference to natural advantages of climate, altitude, grasses, water, and shelter. The land appears almost level to the eye, but in reality it is traversed by deep cañons, worn by the water-flow of centuries, and in these cañons the cattle are afforded protection from chilling blasts of winter—preferable to that offered by sheds. A variety of grasses and a soil which readily yields abundant returns even to the most gentle persuasion of the plow, were strong incentives for the establishment of this great breeding ranch in the Panhandle. Mr. Powell regards the altitude of 3,000 feet as a good developer of sound constitution in animals produced on the spot. Here every facility for a complete breeding establishment is provided. Twelve stock bulls are maintained, and new blood is introduced yearly from the greatest herds of England and America.

The animals produced at the Hereford Home Ranch are almost entirely for the range. The type adopted by Mr. Powell has the short leg and compact body—a type that suggests strength, tenacity, and good feeding qualities.

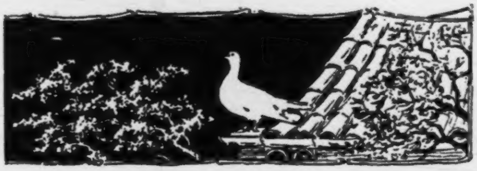
"The demand," said he, "is for the early-maturity beef animal that will weigh 1,200 or 1,400 pounds when he is two years old. The business of the breeder is to supply the demand, and it is now being done. Formerly it required four years to develop an animal to the weight we now see produced on the great Panhandle ranches. The change has been brought about by breeding. Years ago the young cattle were too bunchy—carried too much fat and not enough lean. The breeder has succeeded in equalizing and distributing, building up in one spot and taking away in another, and the beautiful specimens of to-day show the marvels accomplished by careful selection and mating. So far as I can see, the popularity of the 'White Faces' remains undiminished in this country and in Europe. Tracing the history of the Hereford back to 1790, when the great oxen sold for the highest price ever offered, up to that time, in the market, it is a history of progress along the right lines. There is only one course for the Hereford breeder to pursue and that is to keep at it. All experience shows that we dare not stop. The moment we cease to progress we begin to move backward. In this matter of breeding it is impossible to stand still, and the movement is either forward or backward. While the ideal may be unattainable, we must constantly strive for it. The first Herefords imported to this country from Canada were lumpy; they carried great bunches of tallow—two-cent meat. Scientific breeding has enabled their descendants to carry six and eight-cent meat. We see the light horn, the curly coat, the soft, smooth coat; yet no breeder will claim that the perfect type has been reached.

"I am a believer in the theory that in order to encourage business movement, we should keep business going. In accord with that theory I am in the market when prices are low as well as when prices are high. A man should accommodate himself to the tides, for the nimble sixpence is often preferable to the slow dollar. I have seen bulls registered for the range sell at $500 to $800, and I 've seen them selling at $75 or $100. The point is to meet the price, and stay in the business. A man who is producing a high-class article may always expect recognition. Prejudices are disappearing, the world is advancing, and genuine merit is gaining more credit to itself than ever before. In 1876 when I reached Austin, Texas, with a bunch of Herefords from Illinois a prominent cattle-raiser objected—he said there ought to be a law in Texas prohibiting the importation of thoroughbred cattle from any other State. In ten years there was an urgent demand throughout the State for new blood to raise the grade of the range stock. The demand was met, and to-day Texas carries off the leading prize at the principal live-stock shows of America. This is the result of intelligent introduction of registered stock upon the plains."

Animals reared at Beecher, Illinois, under the care of Mr. Powell won first prize at the Centennial Exposition in Philadelphia in 1876. He participated in the competition at the first fat-stock show ever held in Chicago, entering six Miller & Powell steers, young three-year-olds, which averaged 2,060 pounds each. The champion steer of this lot dressed 71.65 per cent, one of the highest records ever attained. Mr. Powell carried off five prizes at St. Louis in one season—1874—representing cash premiums of $850.

At the first show which he entered in Texas, he exhibited a bunch of yearling heifers which averaged over 1,000 pounds each, winning first and second prizes over competitors from the North. Mr. Powell's real interest, however, has always been in breeding rather than in fattening for exhibition, and years ago he retired from the show-ring to devote his entire time to breeding. He built up a specialty by preparing to supply bulls for the range to large cattle companies in carload lots or by the hundred. In this he has been highly successful, having, during the last ten years, sold to single companies as many as 500 to 800 registered bulls. At one time he imported over forty head of fine stock from England to assist in building up his own herd. Mr. Powell's policy is never to pamper his stock. It is always kept out of doors and made familiar with range conditions, although the feeding of bulls in winter is regarded by this veteran breeder as a feature that should be encouraged rather than to be frowned upon. "The bull should be fed in winter," said he. "If he is fed he will produce a healthier, better crop of calves. Any man who has tried both plans will agree that it is cheaper to feed the bull in winter than to let him starve."

Mr. Powell is an interesting talker, and his fund of information concerning the great subject to which he has devoted his life is exhaustless. He has been a close observer, and his thoughts have been along practical lines instead of theoretical. He aimed to secure tangible results, whose value could be tested in the competitive market. It has been his habit for many years to attend to out-of-door affairs in the forenoon, and to spend the afternoon in clearing up his correspondence and looking through newspapers and magazines, to which he is a liberal subscriber. Systematic in the transaction of busness, absolutely truthful and reliable in every thing, well informed as to the progress of events, and with a watchful eye constantly upon the breeding world, the owner of the Hereford Home Herd allows nothing to escape his attention that may add to his efficiency in the work to which he has devoted his life. The breeding of cattle has been always to him a thoroughly enjoyable occupation, and he has put into it his best talent. In the course of his life Mr. Powell has assisted in no small degree in giving to breeding of live stock the dignity and high standing it has attained in all civilized countries of the world, and by his conscientious labors and success in breeding, has earned a place which connects his name indissolubly with the Hereford annals of America.



A. B. Robertson.

A distinguished jurist, in speaking of success in life, said: "Some succeed by talent, some by the influence of friends, some by a miracle, but the majority by commencing without a shilling." The truth of this statement is illustrated by many of the greatest live-stock men of America. In a majority of cases, among the pioneers and those who immediately followed, the individual was absolutely the builder of his own fortune from the foundation to the apex. Many of the men who became acknowledged leaders began without the advantages of school training, and their education was gained in the boundless prairies, under the star-lit sky, and in battling with obstacles of the gravest nature. To these men rightly belongs an honor which a generation reared amidst the advantages and opportunities of later times cannot claim.

A. B. Robertson, president of the Colorado National Bank of Colorado, Texas, and one of the most successful cattlemen of the great Southwest, belongs to the interesting type suggested above. Mr. Robertson, for ten years a member of the board of directors of the Cattle Raisers' Association of Texas, and a member of the Executive Committee of the National Live Stock Association, is widely known throughout the United States on account of his pleasing address, the earnestness, the sincerity, and ability with which he carries forward any undertaking in which he is engaged, and the magnificent character which he has acquired during the forty-nine years of his life. Starting in the range business at the early age of ten years, Mr. Robertson has devoted his entire life to a work that has commanded his undivided attention. He has witnessed every vicissitude known upon the plains of Western Texas, and his knowledge of the actual conditions and the possibilities of that great State are unsurpassed. As early as 1865 he began riding as a cowboy, and at twenty-seven years of age he closed one deal in which he cleared $50,000. Later he became associated with Winfield Scott, of Fort Worth, and the firm of Scott & Robertson has, for eleven years, been conducting one of the greatest cattle ranches of the plains, comprising an area of forty miles square in New Mexico and Texas. From this ranch 80,000 cattle of various grades have been shipped to market. The famous HAT brand was originated by Mr. Robertson—a brand well known in Montana, the Dakotas, and at all the great markets; and the various enterprises in connection with the industry in which he has been engaged could be named by the score. In addition to his cattle, banking, and land business, Mr. Robertson has owned two wide-awake publications of a journalistic nature, the *West Texas Stockman*, and the *Weekly Clipper*, both of which have been eminently successful.

A. B. Robertson—"Sug" Robertson, as he is familiarly known—was born in Indiana, January 14, 1855. His father, Dr. A. B. Robertson, moved with his family to Arkansas previous to the Civil War, and was in the Army of the Confederacy. In 1863, when "Sug" was eight years of age, Dr. Robertson sent his family in charge of a friend to the Brazos River, Texas, as the advance of the Federal troops alarmed many of the people of Arkansas, and quite an exodus took place from that State. The family consisted of Mrs. Robertson (now living at Colorado, Texas); Richard P., deceased; a sister, deceased; Annie Elizabeth; W. C.; A. B.; C. J.; and J. P. Robertson. The trip was accomplished in a covered spring wagon, and the family located in what is now known as Hood County. At the close of the war Dr. Robertson joined his family, and about the same time "Sug" started for West Texas and entered upon his career in the cow-camp. For ten years the lad was almost continually in the service of R. K. Wiley, who proved to be a wise counselor and a life-long friend. The boy showed unusual aptitude for the range, and soon was placed in charge of men twice as old as himself. At eighteen years of age he made his first acquaintance with the trail, and conducted a herd of 1,500 cattle belonging to his older brother over the Chisum Trail from Coleman County, Texas, to Coffeyville, Kansas, one of the leading railway shipping points to Eastern markets. Young Robertson had eight men in his charge, and succeeded in accomplishing his responsibility not only with credit to himself, but with financial success. The panic year of 1873 was at hand, and many Texas cattlemen lost everything in the widespread disaster, but fortune favored the first important business venture of Mr. Robertson. He visited Kansas City, where it required six days to dispose of six "loads" of cattle—a work that can be performed in as many minutes with present facilities.

In 1876 Mr. Wylie assisted his friend by giving him the opportunity of acquiring a half-interest in a herd of cattle in Runnells County. Mr. Wylie owned also a herd of 3,000 or 4,000 cattle of good grade in Tom Green County on the Pecos River, which suffered greatly on account of the presence of a desperate band of cattle-thieves. Men placed in charge of the herd seemed incapable of preventing the depredations, and the outlook was gloomy indeed. At a time when the question was under serious consideration Mr. Robertson submitted a proposition which proved to be the basis of his fortune. He offered to sell to Mr. Wylie the interest he owned in his herd in Runnells County to be applied, upon the purchase of the herd, upon the Pecos. The offer was accepted, and a credit of $15,000 was given, the balance of the purchase price being represented by a note of $25,000, which was promptly accepted by Mr. Wylie. This was in 1879, when Mr. Robertson was twenty-four years of age, and is proof of the faith the experienced cattleman had in his protegé.

Friends of Mr. Robertson attempted in vain to dissuade him from entering into the transaction. They depicted the danger to which he would be subjected from unprincipled men who infested the district and who lived entirely off the cattle-herds. A man of less determined character would surely have lost his life in a contest with the cattle-thieves, as there was no regularly organized body to rid the country of the rustlers. To use the homely phrase of the cowman, Mr. Robertson was determined "to make a spoon or spoil a horn," and he started for the Pecos with full determination to win. Soon after arriving at camp Mr. Robertson located the headquarters of the rustlers in a secluded spot in a bend of the Pecos River. Mounting his horse and armed with a rifle and revolver, he rode alone into the camp.

"As I approached," said Mr. Robertson, in relating the experience, "half a dozen of as ugly-looking men as one would meet in a year on the frontier sprang to their feet and threw their guns down on me. I waved my hand as a friendly greeting, and rode forward into camp. There I was invited to dismount. I talked to the men, saying I had paid all I had in the world for the cattle, and had come out West to try to make some money. I told them I was not there to suppress cattle-stealing as long as they let me alone, but I proposed to keep my cattle and, if necessary, would go to any length with that object in view."

At the close of the "talk" a beef was killed, and a fine supper was served in the rustlers' camp, with the new cattle-manager as the guest of honor. Many interesting subjects were discussed at the camp-fire, and finally a bed was brought out, and the guest was invited to occupy it for the night. Mr. Robertson has generally accepted as true that there is honor even among thieves; but in this instance he determined not to be over-confident, and he carried the bed thirty of forty yards out into the prairie, where he slept that night with his gun beside him. In the morning an appetizing breakfast was served, and the visitor started for his horse. This the rustlers could not permit, for the new arrival might see the cattle that had been carefully herded in the underbrush. The horse was brought into the camp, and before Mr. Robertson left the camp his new acquaintances assured him they would not interfere in any way with his cattle, and if he experienced trouble from any other band they would assist him in obtaining redress. For three years, during which time Mr. Robertson was in charge of the herd, the cattle were not disturbed by thieves. At the close of the three years the cattle and ranch were sold, the original indebtedness was discharged, and Mr. Robertson found himself in possession of a fortune of $50,000.

In 1882 Mr. Robertson settled at Colorado, where he now makes his home. He entered extensively into ranching in Mitchell and Nolan Counties, and in 1893 bought a herd of cattle which he placed upon range in Eddy County, New Mexico, and Gaines County, Texas. Here the HAT brand originated. In 1895 Winfield Scott purchased an interest in the business, and since that time many improvements have been made on the ranch of 1,000,000 acres, with Mr. Robertson as manager. Several neighboring ranchmen were brought out, and $50,000 was expended in watering the range, as there was no surface water on the entire area. The outfit required the employment of forty men upon an average during the year and the use of 500 saddle horses. The headquarters ranch was at Monument, New Mexico, and eight small ranch houses were erected at as many locations. A monthly system of reports was instituted. Owing to the encroachments of the small settlers, the public lands included in the ranch are gradually being abandoned by the firm, and it has been decided to lease no more land on the Texas side of the line. Scott & Robertson have established a ranch in Dawson County, Montana, one hundred miles north of Miles City, to which 8,000 cattle were shipped in the spring of 1903. It is proposed to continue shipments each season until the entire herd has been transported to the Northern range.

On account of reckless management, inflated prices, and an unhealthful boom in cattle in 1884-86, a great disaster was inflicted upon *bona fide* cattle-raisers, and Mr. Robertson, between the years of 1883 and '86, lost heavily on account of being surety for friends. He met the emergency, and has not only recovered, but has far surpassed the limits of his original holdings. For eight years, beginning in 1888, he bought and shipped range cattle on a large scale, and as representative of a large commission firm he placed $1,000,000 and never lost a dollar. His transactions in shipping range cattle amounted at least to 50,000 head.

In 1893 Mr. Robertson became a stockholder in the First National Bank of Colorado, Texas, and was elected vice-president and member of the board of directors. In 1889 he became president of the bank, which has a capital stock $100,000 and a surplus of $80,000.

In 1900 George B. Loving developed a plan for the absorption of many cattle ranches of Northwestern Texas by a New York syndicate, and Mr. Robertson was selected as one of the appraisers. He visited a number of the ranches, and when the plans of the "trust" failed to materilize Mr. Robertson purchased one of the ranches in Crosby, Lynn and Luddock Counties. This ranch comprises 125,000 acres, and is owned by Robertson & Scott, supplying range for 10,000 cattle. Mr. Robertson also had a ranch of 25,000 acres in Borden County, which he recently sold.

On the 30th of May, 1877, Mr. Robertson was married to Miss Emma Leonorah Smith, of Runnells County, whose father was a stock-farmer of Texas. Mrs. Robertson lived for years with her husband upon the ranch far out in the plains, and is an ideal wife and mother. Four children have blessed the home—A. L. Robertson, now twenty-three years of age, and one of the promising young cattle and business men of the State; Pinkie, a daughter of twenty years; A. B., Jr., ten years of age; and Poole, who has reached the age of seven years.

Mr. Robertson had no opportunities of school instruction in his early years. He learned to read by studying newspapers by the light of the camp-fire when a cowboy, and he learned to write by laboriously copying the bills of camp supplies made out by the merchants at his own request, in order that he might have a model; therefore, he has a high estimate of the value of an education acquired under more congenial circumstances. The children are being given the advantages of the best educational facilities of the land.

"I have been a range man, not a feeder," said he, in speaking of his experiences. "I believe in a man sticking to the business he understands; but it is evident that the day of the great range is past, and concentration and improvement of herds is the order of the day. The general Government ought to devise some plan of leasing the arid and semi-arid land—fit for nothing but pasture and of benefit to no one as long as it is open to the public. Men who have foresight will not run the risk of placing large herds upon the public range, with so-called settlers arriving and taking up the land. The lease-law should be so drawn up as to prevent a few men from leasing the whole country, but should be drawn upon the good old democratic principle of the greatest good to the greatest number. I have faith that the problem will finally be worked out successfully. The time is coming when the land will, in many wide districts, be utilized for hay and forage crops. Water will be put upon many waste places, and cattle will not be obliged to travel so far to water, thus saving flesh which is now walked off in traveling from food to water. Cattle are about as high-bred for the range as they should be. The high-bred cattle are not a success on the open range, as they are not as hardy or as prolific as cattle of lower breed."

"West Texas is as yet undeveloped. We are just learning of the value of land which for many years has been regarded as a desert. In fact, the immense plains country will yet be recognized as the most valuable part of the State. Even in one of the dryest seasons we have ever known, good forage crops have been raised. The time is at hand when men with money to build reservoirs will recognize the opportunities presented on the staked plains and the flood-waters will be utilized for irrigation. There is absolutely no soil in any country of the world that is more productive than that of West Texas if water is applied. All varieties of timber grow readily in the region, and I venture the prophecy that in years to come the staked plains will be the most densely populated portion of Texas. The country is level and unbroken, and there is less waste-land on the plains than in any other region of similar size I have ever seen. The climate is not too hot in summer, and after wind-breaks are built, as they will be, the winters will present no serious obstacles to settlements. It is a stock-farming country, and will take its place permanently as the richest stock-farming country of America."

The nickname "Sug" originated when Mr. Robertson was a child of two years. He was several years old before his teeth developed. In the community lived an old physician, Dr. Sug, who had long been toothless. The name "Sug" was applied to the child because of this resemblance to the doctor, and it has remained with him through life.

Mr. Robertson is a brilliant talker, a fine story-teller, and at gatherings of cattlemen is always the center of a circle of admirers. He was personally acquainted with many of the pioneer cattlemen, and regards John S. Chisum as the best cattleman he ever knew. His reminiscences of the days of the buffalo and Indian are of striking interest, and his stories of cowboy life cannot be surpassed.

"Nobody nowadays knows what a stampede is," remarked Mr. Robertson, with a tone of sadness in his voice. "In 1871 I was working at the Flat Top Ranch, Coleman County, Texas. This ranch lay on the trail leading out of Texas to New Mexico and Arizona, striking the Pecos at Horsehead Crossing and passing through one stretch of ninety miles without a drop of water. The ranchmen for a radius of sixty or one hundred miles engaged me to watch the herds and cut out the strays. My business was practically that of the cattle inspector of to-day. John Chisum had several herds *en route* to New Mexico. He led the way with a herd of 6,000 stock cattle, and a man named Adams followed at a distance of eight or ten miles with a herd of 3,000 four or five-year-old steers. These cattle stampeded almost every night; they had acquired the habit of stampeding, a habit very much dreaded by cattlemen.

"The first stampede of the herd was caused by a horse coming in from the second relief stepping into the opening at the top of a McClellan saddle which was lying on the ground. The horse's foot was caught and he started to run. The strange noise made by the saddle as it struck the ground started the stampede. The provision wagon was quickly demolished, and one man was knocked down and had his hip thrown out of joint.

"I had gone along with the herds for several days, and at the eighteen-mile crossing of the Concho River I decided to turn back from the large herd. Mr. Chisum, being informed of the troubles which Adams was undergoing, concluded to ride back with me. He thought he could determine the cause of the stampedes. When we reached the steer herd Mr. Chisum directed Adams to bed his cattle for the night, and when they got to the bed-ground he would go out and look them over. I accompanied Mr. Chisum. After riding through the herd for twenty or thirty minutes he called Adams and pointed out the cause of the stampede. It was a steer with extremely wide and crooked horns with one eye and narrow between the eyes. Mr. Chisum ordered that the steer be cut out, driven down the river, and killed. This order was obeyed, and there were no more stampedes on that trip."

The field of action into which Mr. Robertson was thrown very early in life was one of the most remarkable the world has ever known for the development of character. Surrounded by none of the luxuries of civilization, brought face to face with the stern problem of existence, and obliged literally to win his way to any position he might reach by his own industry and judgment, he early learned the great lesson of self-reliance. He found that the one who perseveres gains the best things of life, and the faithful performance of work presented from day to day will insure the attainment of every worthy ambition. As the years advanced he learned that the world is filled with good things, and the choicest fruits may be plucked by the hand that is controlled by common sense and guided by experience. Hopeful in disposition and gifted with the magnetic qualities that insure leadership, Mr. Robertson has been a perennial source of inspiration to his associates, and a leading factor in the growth of West Texas. His ideas as to the road that will lead to success for any young man are expressed in the following words:

"Every man makes his own luck. It is in the man, not the circumstances. The secret of success is in strict attention to business. When a man starts he must learn all the details, and as his operations enlarge he ought to be capable of selecting men competent to take charge of the various departments. This relieves the manager and is a great advantage to employees who are qualified for responsibility. A man should have the confidence of his associates, and he should always most sacredly guard his credit, as a good name is for many a man his fortune.

"It makes little difference what business a man chooses if it is honorable and if he carries it forward upon right principles. Anything that is worth doing at all is worth doing well. A young man impelled by right principles can succeed at anything, and he is not obliged to build himself up by tearing somebody else down. He should aim to create something, and thus show there is a reason for his existence. If he starts as a huckster, his aim should be to reach the head, for there is always room at the top. If anybody inquires for the best huckster in town, the name of this young man is the one that will be heard. He must be industrious, and if he is working for wages at $15.00 a month he should perform his work so well that he will be worth $50.00 a month. The wages a man receives should never be considered by him in performing his work, as he must do the best that is in him at all times. If the employer is awake—and he generally is—the faithful employee will receive the recognition he deserves.

"The world can't hold down the man who is determined to succeed and who proceeds fearlessly at his task. That is the joy of living. It is the duty of a man to look out for his own interest as well as that of his employer, but he must always be honest, for if a man ever becomes rich through dishonesty his money will do him no good. The successful man is not necessarily the very wealthy man; the successful man is the one who actively engages in the world of business, and yet preserves his conscience and his honor.

Such a man cannot fail to be happy and cannot fail to make those about him happy; he radiates an atmosphere of happiness. He reflects credit on the race, and if he cultivates the executive ability to move large affairs, he becomes a power in any community. The successful man accomplishes marvellous results, even in the short span of a single lifetime. It is an obligation of every young man, imposed by a wise Creator, to make a success of himself, and under no circumstances should he allow any diversion or any obstacle to interfere with this glorious possibility."

Wild and Woolly Cowtowns.

Lurid Way-Stations in the Progress of the Range Cattle Industry.—Extraordinary Products of Extraordinary Times and Conditions.—The Wild and Woolly Cowtown Originally a Kansas Product.—The Rise, Progress, and Downfall of Abilene, the First Flaming Cowtown.—Piebald Character of Its Population.—Attempts to Maintain Order in It.—Its Famous Two Town Marshals, "Tom" Smith and "Wild Bill" Hickok.—Their Different Ways of Doing Business.—End of Abilene as a Cowtown.—Transfer of Cattle-Shipping to Other Points.—Southern Kansas Cowtowns.—Coffeyville, Newton, Great Bend City, and Wichita.—Dodge City, the Nearest Rival of Abilene.—Quivering Fierceness of Its Iniquities.—Las Animas, and Kit Carson, Colorado.—Hays City, Kansas.—Cheyenne, and Laramie, Wyoming.—Miles City, Montana.—Some Texas Local Cowtowns.—Tascosa's "Boot Hill."—Futility of Attempts to Veil the Hideousness of the Old Cowtown in an Atmosphere of Romance.

During a period of about fifteen years, beginning in 1868, the history of the range-cattle industry was made lurid in places by the notorious "wild and woolly cowtowns." These came into existence, one after another, each flourishing for a few years, on the lines of several of the pioneer Western railroads as these iron trails advanced farther and farther into the range country; the worst being those that were made shipping-points for the great trail-herds coming from the South.

Without railroads such towns were impossible, but with more railroads they could not continue to be. Some of them became capitals of disorder, vice, lawlessness, and crime that were not surpassed in iniquity by the worst of the mining-camps ever developed in the Rocky Mountains. Each of them, when at the zenith of its renown for wickedness, was much like all of the others in kind, such variations as were presented being principally only those of degree. So it will be sufficient to the purposes of this work if, in the main, we confine our attention here to a few of these extraordinary products of likewise extraordinary times and conditions.

While these towns primarily were appendages of the pioneer railroads referred to, they were engrafted upon the cattle business of the West, and therefore their meteoric careers became a part of the history of the industry. They afforded havens for many of the desperadoes, professional "bad men," and scoundrels of every depth of dye, by whom the West was overrun for some years after the close of the Civil War. Furthermore, the dissipated and reckless element in the ranks of the cowboys, that needed only the excitement of intoxication to make it dangerous, in the first half of the cowtown period stood at the highest it ever attained among them.

These towns, even in the height of their notoriety, had but a small population proper; that is, of those who regarded themselves as citizens, and who could not or would not leave on a day's notice. Counting out the parasite class, most of which would go to larger towns to "winter," the worst of these cowtowns when at its worst had a real population of only about 500. But during the "cattle season," that opened late in the spring and continued far into the autumn, the influx of buyers, speculators on the spot, drovers, cowboys, street hawkers, desperadoes, gamblers, and on to the end of the list, would raise the number of those present in and around the town more than ten-fold.

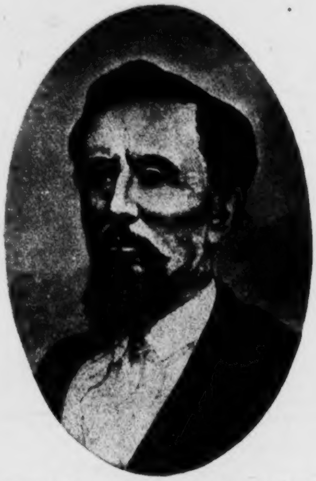
The State of Kansas always has had a leaning toward phenomenal things, and therefore perhaps it was natural that phenomenal cowtowns should develop upon her soil, although her geographical situation affords an alternative explanation. This sort of cowtown originated in Kansas, and, indeed, nearly all of similar characteristics that came afterward were located within her borders; her first one excelling all others in wildness and woolliness. Abilene established itself as the standard by which every other was measured—and found more or less wanting. By the time that town had gone to the half-way point in its career, the limit in variety and possibility in uproarious "frontier wickedness" appeared to be reached, and so it seemed that if more were wanted it could be had only in the form of greater quantity. In after-times when a cattleman who had known Abilene met one who had not, but who had knowledge of some other of the same stripe, and the two indulged in reminiscences, the remarks of the latter invariably would call forth some such response as—"Yes, that was a hard town; but it was n't as bad as Abilene."

"Abilene" is a classical name. St. Luke (iii:1) refers to "Lysanias tetrarch of Abilene," which was a fragment of the earlier kingdom of Iturea. No doubt they had lively times once in a while in this old Abilene, but we have no idea that any part of it ever was the equal in wildness and woolliness of the Kansas Abilene when the latter was in its alleged "glory." During most of its career as a cowtown the Kansas Abilene had no Tetrarch, though for a little while in the beginning Joseph G. McCoy thought he stood for such a governing functionary.

Abilene, as a market and railroad shipping-point for cattle, was the conception of Mr. McCoy, from whose "Sketches of the Cattle Trade of the West and Southwest" we have made some quotations on preceding pages of this volume. He was one of three brothers who were extensive buyers and shippers of cattle in Illinois, and whose homes were at Springfield, the capital of that State. His brothers were interested with him in the undertaking financially, but he was the leading spirit in it, and became its general manager on the ground. At the time McCoy set his enterprise on foot, the Union Pacific Railroad had been completed through Nebraska, and the Kansas Pacific, the first one to advance into Kansas, had pushed the western end of its track into the northern-central part of that State. But from Kansas southward clear to the gulf there were no railways excepting a few local lines in the eastern part of the Texas coast region; and the only practicable northern outlets for Texas cattle were, as we have seen, the trails that led into southeastern Kansas and southwestern Missouri, where the Texas drovers had been having trouble with "hold-ups," as well as with honest settlers who were afraid of having Texas fever introduced into their country.

Of the circumstances and the very praiseworthy motives that induced him to extend a helping hand to the Texas trail-cattlemen, and to remedy some of the discouraging conditions under which they labored, and that also resulted incidentally in lifting Abilene from the deepest obscurity to a lofty pinnacle of fame, McCoy, writing in the third person, says in his "Sketches":

"All three of the brothers were of that sanguine, impetuous, speculative temperament; just such dispositions as always look most upon the bright side of the picture and never feel inclined to look at the dangers or hazards of a venture, but take it for granted that all will end well that looks well in the beginning. If the above could have been said of the brothers collectively, it could be said with particular truthfulness of the younger one of them. Ambitious, energetic, quick to scent out and untiring to follow a speculation, fully possessed with an earnest desire to do something that would alike benefit humanity as well as himself; something that, when life's rugged battles were over, could be pointed to as an evidence that he had lived to some good purpose and that the world, or a portion thereof, was benefited by his having lived. This young man conceived the idea of opening up an outlet for Texas cattle. Being impressed with a knowl-



Joseph G. McCoy, Founder of Abilene as a Cattle Market and Shipping-Point.
(From his "Sketches of the Cattle Trade.")

edge of the number of cattle in Texas and the difficulties of getting them to market by the routes and means then in use, and realizing the great disparity of Texas values and northern prices of cattle, he set himself to thinking and studying to hit upon a plan whereby these great extremes would be equalized. The plan was to establish at some accessible point a dépôt or market to which a Texan drover could bring his stock unmolested, and there, failing to find a buyer, he could go upon the public highways to any market in the country he wished. In short, it was to establish a market whereat the southern drover and northern buyer wolud meet upon a equal footing, and both be undisturbed by mobs or swindling thieves."

Poor McCoy! In his situation of hopeless bankruptcy a few years later, and when the cattle trade he founded had been literally driven away from Abilene by the people of the town and county and forbidden to return, he might well have applied to his own case the words of Robbie Burns—"never honest man's intent so cursedly miscarried."

McCoy, after having prospected the western half of the completed part of the Kansas Pacific road, selected Abilene as the germ of what was destined to become a renowned metropolis of wildness, wickedness, and woolliness, as well as an important cattle market, during a few fleeting years. The place, as remarked heretofore, then was a mere hamlet on the railroad that had not yet risen to the importance of even a "box-car station." McCoy built shipping-yards and other facilities for his business and put "a good three-story hotel well on the way toward completion" during the summer of 1867, and was ready for cattle early in September. The trade that year was limited to herds from Texas that were belated in reaching Kansas and that had been intercepted by "drummers" who had been sent South to apprise drovers of the existence of the new cattle market and shipping-point. Some merchants and a greater number of less desirable folks joined fortunes with Abilene in that autumn, but the town remained fairly decent until the following spring.

Abilene having been extensively advertised throughout Texas during the winter of 1867-68, the promise of a large number of cattle, cattle-drovers and their assistants, and cattle-buyers, coming to the place during the following summer and autumn, induced flocks of human birds of prey early to alight there and to put themselves in readiness to feed upon their expected victims.

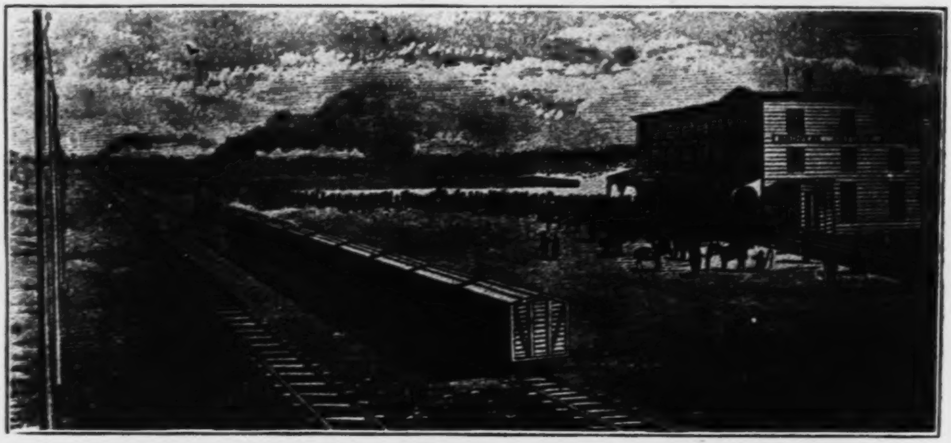
In most accounts of Abilene during the period of its lawlessness that have come to the present writer's notice, the burden of its wickedness is thrown upon its cowboy visitors. While a part of the disorder that made the town infamous unquestionably was due to men from their ranks, as great, and probably a greater, part, directly or indirectly was made by the horde of desperadoes, thieves, swindlers, confidence men, gamblers, buncoists, courtesans, and other human dregs that helped in making the place a pandemonium for about four years. Saloons, dance-halls, gambling-holes, and dives of every other evil sort, in great plenty, appeared in 1868, and increased in number during each of the next three years. The character of the town was stamped by murder, lewdness, drunkenness, uproar, robbery, swindling, gambling, and all manner of lesser evils. The most noise was made by drink-crazed cowboys, who staggered about or rode up and down yelling, screaming, whooping, and firing their revolvers into the air or at some human target that was passing by, but meanwhile the horde of outlaws, swindlers, and outcasts was doing more actual harm.

In 1868 Abilene had "got good and ready" to receive its crown as "the wickedest and most God-forsaken place on this continent"—a distinction that was freely conceded to it in 1869. Its cattle trade in 1869 was not far from five times as great as it had been in the previous year, and its wickedness easily was five times greater. Indeed, there seemed to be no limit either to the extent or to the variety of form of its iniquities, and the town's burying-ground back on a hill to the north that overlooked the riotous hot-bed of crime and folly, received in that year frequent additions to its silent population; more than one unlucky cowboy reaching the end of his life-trail in a hole in the ground on that hill in the last year of the 60's.

Up to the autumn of that year no effort had been made to control the disorder and check the brazen lawlessness; everything and everybody being permitted to go ahead in the free and unlimited coinage of uproar, vice, and crime. While Abilene was the county seat of Dickinson County, the organization of the Sheriff's office was weak and indifferent, and, furthermore, in the opinion of all of the shady class of citizens Abilene was "having a boom" that must be encouraged to keep on booming. But early in September, 1869, just two years from its beginning as a cowtown, the place was incorporated and a form of local government organized; the conditions having become intolerable to those of the citizens who really had a permanent stake in the town. The Board of Trustees, of which our old friend, Founder McCoy, was a member, promptly enacted various ordinances, the more important of which were those intended to promote order and punish the lawless.

But by the time this had been done the season was so nearly closed that active government was not attempted in that year. In the spring of 1870 the Board of Trustees, the chairman of which, T. C. Henry, was clothed with powers and charged with duties corresponding to those of a Mayor, prepared for an active campaign. The resident population of the place did not exceed 500, yet thirty-two saloons were licensed by the Board. Closing hours were to be enforced, the more brazen of the dives and their inmates were to be pushed out and back from centers, and the more flagrant crimes punished. Gambling and minor vices were to be disregarded, for at best barely more than a semblance of decency was hoped for.

Such laws as were tentatively ventured required, of course, executive enforcement, and therefore the office of Town Marshal was created, the ordinances were published, and notice was proclaimed that law and order thereafter should govern Abilene. Carrying fire-arms within the town limits emphatically was forbidden, bulletin boards on which was conspicuously lettered a notice that Abilene was to be reduced to a peace-footing were erected on the roads entering the town, and tidings of the proposed revolution in favor of law and order were heralded all the way to the Gulf of Mexico.



View in Abilene in 1869.
(From McCoy's "Sketches of the Cattle Trade.")

Creating the office of Town Marshal had been easy enough, but to find a man who could fill it and stay in it was quite a different proposition. Man after man, some of whom were as brave as any others that walked the earth, tried it, and after a few days' experience gave up the job; the lawless element over-awing them and driving them off the streets. Instead of the conditions being improved by the attempts at government, they grew worse rapidly, disdain for the law and its officers loudly and boastingly was expressed, and all of the town officers were threatened with death if they persisted in their efforts to better the state of affairs; these menances coming from the criminal element that infested the town.

The increasing insolence was exhibited in various ways, one of which, rather ludicrous, is worthy of mention here. The fire-arms ordinance had been printed in placard form and copies had been posted everywhere about the town. At the outset these had been viewed by the crowds with a mixture of awe and curiosity, but gradually their significance and purpose were comprehended. Then some of them contemptuously were destroyed by "toughs" of the town; but the cowboys, animated by different feelings, made targets of them, and as they rode around whooping and howling they took shots at these proclamations that gravely forbade any one carrying fire-arms within the town's limits. Within a short time nearly every remaining outdoor placard had been so plentifully punctured and punctuated by bullets that not even the authors of the ordinance could make head or tail of what the posted copies of it had originally announced.

The Town Trustees bargained for the building of a stone prison in the central part of the town, but when the walls were nearly up a party of cowboys made a raid into town and tore them down, but under protection of a strong guard the workmen rebuilt the walls and finished the prison.

Its first occupant was a young negro cook for a trail-herd outfit camped eight miles out of town. He had come in, steamed up some, and had begun firing his revolver, when the man who was Marshal that day managed by some unaccountable good luck to arrest him and throw him into the new "calaboose" without being interfered with by the people who really were "running the town." The darkey's outfit soon learned of the whereabouts of the cook, and in a body rode into town to rescue the person upon whom their daily meals depended. After driving the marshal into hiding, the jail door was burst open and the cook rescued. Then the band, pretending to have been outraged by the imprisonment of the cook, ordered all of the business houses to close, in some instances enforcing the mandate by mounted invasion of the premises. Then the party, after thoroughly "shooting up" the town, returned to camp with the precious cook unharmed.

But in the saturnalia of disorder that continued, this experience with the first prisoner in the new jail soon was forgotten. Fresh Town Marshals of local origin continued to be tried, only to throw up their hands and resign; one who served into the second or third day being regarded as a veteran in the apparently hopeless cause of law and order. Finally the "Mayor" appealed to the Chief of Police of St. Louis to send him two men competent to manage the town. In a few days they appeared with their credentials that seemed to make it plain that the powers of evil in Abilene now were to be suppressed. But upon the day of their arrival, which had become known in advance, every device and form of lawless deviltry that could be conceived by hundreds of reckless minds was truned loose. The St. Louis peace-makers were so amazed and astounded by the magnitude of the job to which they had been called that they took the first return train for home without having been either "sworn" into or out of office—one day's view of the situation having been quite enough for them. It now became evident that Abilene either must have for its Town Marshal a kind of man hitherto unknown and untried, or supinely give up to the domination of lawless forces.

At this critical period there appeared upon the scene Thomas J. Smith, Marshal of Abilene; a hero who became personally known to hundreds of cattlemen and cowboys in 1870, some of whom still are living; and who, it may be remarked here, also became to nearly all of the cowboys who went to Abilene in that year with trail-herds from the South, their ideal of a man without comprehension of the meaning of the word "fear." Smith had applied for the place a few days after the office of Town Marshal had been created, but, while physically he was a giant in strength, his quiet ways, soft and low voice, and utter lack of anything like bravado, had led the "Mayor" to conclude that such a man could not be Marshal of Abilene; and therefore Smith, who had come to Abilene from the Kansas Pacific Railroad town of Kit Carson, Colorado, to obtain the appointment, had gone away disappointed. But after the precipitate retreat of the St. Louis delegation the "Mayor" of Abilene, who was at his wits' ends, thought that as a last resort he would give the quiet, low-voiced man, whom he had "turned down" earlier in the season, a trial, and therefore he had telegraphed to Smith to come.

Within six months after his appointment as Marshal, Smith was killed outside of the town while in discharge of his duty, and was buried at Abilene with every manifestation of profound grief among the citizens; all business being suspended upon his funeral day. Recently the people of the present beautiful little city resolved to place a monument at his grave, and on Memorial Day (May 30th), 1904, the monument, a great granite boulder that suggests the character of the man whose memory it perpetuates, and that bears a large bronze tablet, was unveiled with appropriate ceremonies and presented to the city. The principal speaker upon that occasion was Mr. T. C. Henry, Abilene's first "Mayor," and who at this writing is a citizen of Denver, Colorado. Concerning the employment as Marshal of the man to whose memory the monument had been raised, of his methods in making it plain that he intended to be Marshal in fact, as well as in name, of his triumph over the powers of evil, and of the circumstances of his death, Mr. Henry said:

"It was on a Saturday morning late in May, 1870, that Smith re-appeared at my office. I related to him briefly the story of our troubles, and intimated that he would better first look over the situation, for, possibly, he might not care to undertake the job. He smiled rather grimly, but without a word proceeded on my hint.

"It was nearly sun-down when I saw Smith coming back. I stood bareheaded in my office doorway as he approached. He declined to come in, but remained standing outside, with his hat removed. I inquired what he thought. He said he believed he could handle the town.

" 'What plans do you propose to accomplish that?' I asked, anxious to get his ideas and to 'size him up.' He replied that fire-arms must be given up; that whiskey and pistols were a combination beyond control. 'As well contend,' he said, 'with a frenzied maniac as with an armed and drunken cowboy.' His logic was well grounded, but the images of the obliterated ordinance-placards that had been used for targets were equally impressed; beside, my recent study of cowboy nature and training had matured convictions in my mind respecting the inherent difficulty of determining whether a cowboy and his gun were separable elements, even under normal conditions. But I mastered my rising skepticism, and inquired if he really thought that he could enforce that ordinance.

" 'Yes,' he said, 'I think I can.'

" 'When do you want to begin?' I asked.

" 'As well at once,' he quietly replied.

"Then I recited the oath of office to him as we stood there alone. How well I recall the scene at that moment! I was about a foot above the ground, facing northwesterly. The bright gleams of the setting sun athwart Smith's square right shoulder struck me in the face. As he raised his hand for the oath in response to my own, the blinking glimmer of the rays made me lift my other hand to shield my eyes as I peered searchingly into his own. If I could but picture vividly, like a kineograph, the full perspective spread before my vision then, what a priceless treasure for your archives it would be! Silently he moved off, and I watched him, with misgivings, disappear down town, a third of a mile away.

"Almost immediately he encountered Big Hank, a cowboy desperado, who had made himself particularly obnoxious to former marshals, and had been loudest in his boasts that no one could disarm him. Wearing a belted revolver, he approached Smith and tauntingly asked him if he were the man who proposed to run the town. Smith said that he had been employed as Marshal, and that he should try to maintain order and enforce the law.

" 'What are you going to do about that gun ordinance?' asked Hank.

" 'See that it is obeyed,' replied Smith; and then he quickly added, 'I must trouble you to hand me yours.'

"With a coarse oath this was refused. Characteristically cool, Smith again made the demand, and again met with profanity and abuse. Instantly he sprang forward and landed a terrific blow which placed Big Hank *hors du combat.* The Marshal took away the pistol, and ordered its owner at once to leave for camp, a command heeded with crest-fallen alacrity.

"Before midnight the news of this encounter had been heralded over a radius of many miles throughout the country. The unique punishment administered was wholly new to cowboy warfare, and every phase of the combat was debated. In a camp out on a branch of Chapman Creek a wager was laid by a big, burly brute that he could go to town and defy surrender of his gun. Promptly next morning, Sunday, Wyoming Frank was on hand to fulfil his boast, Smith was rather late in appearing. The desperado, impatient and drinking, began vaunting that the Marshal had probably heard that he was in town, and he 'reckoned that he had lighted out.' Finally Smith came quietly down the middle of the street, as was his wont, and presently confronted the advancing bully. Quite as Big Hank had done the evening before, Wyoming Frank began 'chaffing' insolently, with the idea of involving Smith in a quarrel as an excuse or resisting the demand he knew would be made. Divining his purpose, Smith guardedly requested surrender of the gun that was purposely displayed. Of course this was refused, but some what daunted by the peculiar, steelly glint of Smith's eyes, the bully began backing as Smith advanced quietly, calling for his gun. Frank steadily retired, maneuvering for time and space in which to draw his pistol, and thus have the drop on Smith. But he was balked by the latter's close reach. Finally they backed into a large saloon, where the crowd that had been attracted gathered and surrounded them. In the center Frank came to a stand, facing Smith. To his courteous but firm demand, Frank exploded an insulting oath and vile epithet. Quick as a flash Smith vaulted and, with a terrific double blow, sent his antagonist prone to the floor, and with the unbelted pistol vigorously belabored the big brute. Then, standing him, Smith said: 'I give you five minutes to get out of this town, and don't you ever again let me set eyes on you.' The latent demon in Smith blazed defiance to every spectator.

Thomas J. Smith, Marshal of Abilene.
(From a photograph made in 1870.)

"For an instant all stood dazed and speechless, whereupon the saloon proprietor stepped from behind the bar and said to Smith: 'That was the nerviest act I ever saw. You did your duty, and that coward got what he deserved. Here is my gun. I reckon I'll not need it as long as you are marshal of this town.' That was a signal. Every one pushed forward proffering Smith pistols and overwhelming him with a profusion of compliments, expressions of admiration, and so forth. He quietly thanked them, and said: 'Hand your guns to the bartender to keep until you want to get out of camp.' From that moment Tom Smith was master. The cowboys, as a tribute to his marvelous nerve and gentlemanly self-command, became his allied and loyal friends. No guns thereafter were openly worn on the streets of Abilene while Smith was Marshal; nor was he ever again openly affronted. Of course there were drunkenness and quarreling; dens of iniquity flourished; murders occurred; but his tact, courage, and good judgment were always adequate to minimize consequences and without resistance. Smith became alike popular with merchants, citizens, cowboys, gamblers, and saloon-keepers. In a short time he ruled Abilene practically without oversight.

"But there was another element in Abilene with which Smith had to deal—the 'bad-man' desperadoes. At one time a gang of them planned to get him into a house, to put out the lights, and then to shoot him. They did get him into the house and the lights were put out, but no sooner had the shooting begun than Smith, too, opened fire. The battle ended in about a minute, after thirty shots had been fired, but Smith was unhurt. That was the only provocation that ever led him to lose his temper to my knowledge, and he surely did so at that time. He came to my office the next day and swore he would kill at sight the man whom he knew was the leader in the conspiracy. But, as it turned out that man was not again seen in Abilene. Smith had in him the making of a veritable devil when aroused, but he was such a master of himself that it required extreme provocation to arouse him.

"One bright morning early in November Smith rode up to my office on Silverheels, his beautiful dappled gray, and asked permission to go into the country to aid his deputy in arresting a man named McConnell. A short time before McConnell had shot and killed a neighbor in a quarrel over some crop damage done by the latter's cattle. He said McConnell was reputed to be a desperate character; beside the deputy did not know the way out there, twelve miles across the prairie. I suggested that he look around the town, see who was in from the camps, and if the prospects seemed favorable for a quiet day we would run the chances. He acted on my suggestions, and half an hour later reported that he would take the risk. With a tip of his hat and a smile he rode away—fated to be his last ride. He himself took over the writ from the deputy, and his attempt to serve it ended in a tragedy that closed the career of that generous soul; that brave and dauntless officer. He was shot dead. The mission which cost his life was prompted by motives of friendship for the deputy. The impulse to share where danger lurked led to his own sacrifice. Unswerving loyalty to his friends and fearless devotion to duty, twin characteristics throughout his life, unhappily made for his martyrdom.

"Thomas J. Smith was born in New York city about the year 1840. His parents were Irish by birth. His Celtic origin showed in his physiognomy and build. In temperament, character, and bearing he was thoroughly American. He was nearly five feet eleven inches in height, weighed 170 pounds, was broad-shouldered, erect, athletic, and physically superb. Of fair complexion, auburn hair, light mustache, and gray eyes with a bluish tint—his most expressive features when aroused. His manners were gentle, unobtrusive, and simple; his dress unpretentious, and sensible; his voice low-toned and evenly modulated; his language plain and direct.

"Smith was fairly well educated; reared Catholic; clean of speech—I never heard him utter a profane word, nor employ a vulgar phrase. He never gambled, drank, nor was in the least otherwise dissolute. He was singularly and perhaps significantly reticent as to his early life. I cannot learn that he ever mentioned his family, nor was it ever known if he had any living relatives. He had been well-bred, and good blood coursed in his veins. Some sorrow, or tragedy, mayhap early drove him from home and friends out alone into the far West. It is nearly authenticated that he was a victim in the Mountain Meadow massacre, and left for dead. Certainly, a little later, he was in western Utah and Nevada."

The bronze tablet affixed to the granite boulder monument that stands at Smith's grave bears the following inscription:

THOMAS J. SMITH,
Marshal of Abilene, 1870.

Died a Martyr to Duty, Nov. 2, 1870.

A Fearless Hero of Frontier Days, Who,
in Cowboy Chaos, Established
the Supremacy of Law.

Smith's successor as Marshal of Abilene was William B. Hickok, otherwise "Wild Bill," a noted western scout, gun-fighter, and so forth. He wore his hair long, and dressed immaculately in the frontier bravado style. His entire "get-up" comported with the self-conscious posing he practiced habitually. His manner and expression were repugnant to his betters, and invited resentment and attack from the general class of men with whom, as Marshal, he had to deal in the enforcement of law. The temperaments and methods of the two men were radically different. The moral element was at the bottom of Smith's fine courage, and instinctively he trusted in it. He did not depend upon the expert handling of fire-arms in the discharge of his duties, and it is said that while he was Marshal of Abilene he never fired a shot at a lawbreaker except upon one occasion—that of the conspiracy to kill him. It is further said that in the presence of danger his thoughts never seemed to turn to weapons; his mere manner being enough to quell the worst man among the host of bad ones in Abilene in 1870. Wild Bill's bravery and bearing were of a far lower type. While he was not afraid of anybody, he never forgot that he was well armed and that he could shoot quicker and straighter than could any man with whom he was likely to have trouble. His wonderful expertness with the revolver had given him nearly a score of victims, whose scalps, figuratively speaking, he carried at his belt in Indian fashion; and he was not unduly modest in encouraging public notice of the sanguinary record he had made.

William B. Hickok—"Wild Bill."
(From a photograph made when he was Marshal of Abilene.)

Wild Bill's administration was a failure. The number of cattle driven to Abilene in 1871 was far greater than in any previous year, and a carnival of crime, disorder, and shame prevailed to an extent exceeding the worst that had been known before. While personal encounters with the dead-shot Marshal were avoided as much as possible, the defiance of law and decency was general, brazen, and flagrant, and the history of the town in that year was a story of vice, crime, and blood.

These conditions caused public sentiment among the substantial citizens of the town, and among the farming population of the county as well, to crystallize into a determined purpose to resist the continuation of the cattle traffic at Abilene. In the town life and property were at the mercy of violence and disorder, and during that season the county for miles in every direction had been over-run by the hordes of cattle coming in from the South and by those that had been held in await upon the market. Early in 1872 an organization called the "Farmers' Protective Association of Dickinson County" was formed by the town and the country people, and in February of that year, under the auspices of this organization, there was sent broadcast over Texas and other parts of the Southern range country a circular that bore the names of a large number of the influential citizens of the town and country, and which read as follows:

"We, the undersigned, members of the Farmers' Protective Association, and officers and citizens of Dickinson County, Kansas, most respectfully request all who have contemplated driving Texas cattle to Abilene the coming season to seek some other point for shipment, as the inhabitants of Dickinson will no longer submit to the evils of the trade."

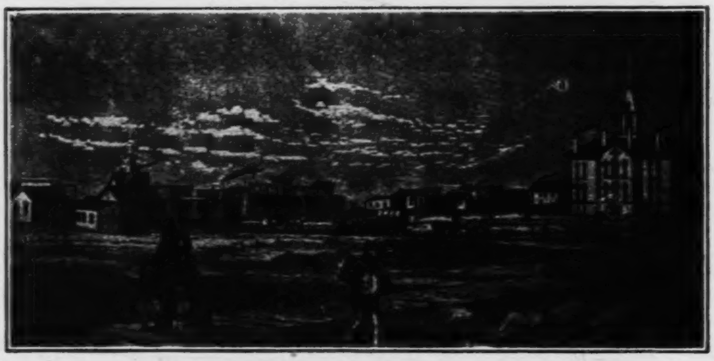
This abruptly ended the trail-cattle trade at Abilene, for not another herd from the South entered Dickinson County. Of course the stoppage caused the town to be abandoned by everybody and everything that had depended upon the trade or upon the conditions against which the citizens had arisen. But after a few years of painful quietness the erstwhile wildest and woolliest town that ever was heard of under the sun entered upon a new life, in which it became the sedate and thrifty country town that grew into the pretty and prosperous little city of the present time.

What of McCoy, the founder of Abilene as a cowtown? He had over-reached himself in cattle speculations during the prosperous year of 1870, and "went broke." In his "Sketches" he says his troubles were started by the Kansas Pacific Company's repudiation of its contracts with him, and also that when it became known that he was slipping down hill financially everybody contributed a shove to send him further below. He left Abilene in the spring of 1871 and subordinately engaged in the cattle business in southern Kansas, and is at the present time a citizen of Wichita.

It is probable that Abilene would have lost its southern cattle trade within a few years anyhow, for at the time its people banished the business from their town the Kansas Pacific road that had been completed through to Denver in the summer of 1870 had established several shipping-points west of Abilene for southern trail-cattle bound for Eastern markets. Furthermore, railroads already had made their way into southeastern and southern Kansas and were intercepting the north-bound trail-herds. Baxter Springs had become a railroad cowtown with woolly accessories, but as most of the Texas herds now were passing north on trails farther to the west, the place had not become a very important center. Coffeyville, in that section of Kansas, also had become a railroad cowtown of the Baxter Springs grade and of about the same degree of roughness. Both these places, in consequence of their proximity to the Indian Territory border, had been infested by a tough element and continued to be long after they had ceased to figure much as shipping-points for Southern cattle.

The Atchison, Topeka & Santa Fé Railroad was completed from Topeka to Emporia in the summer of 1870 and its construction farther west was in very active progress. By the spring of 1871 the road had reached the town of Newton, which became a cattle-market and shipping-point in that year. Life in Newton soon became greatly animated. Its general disorder was of the Abilene type, but in extent or magnitude it fell far short of that of the famous pioneer of wild and woolly cowtowns. However, a record was made there of eleven men having been shot and killed in one night. Many of the outlaws and desperadoes that infested the Kansas-Indian Territory border tried life in Newton for a while, and most of the crimes and outrages were committed by these and others like them.

But Newton's prominence in this unhallowed respect did not last long. By the spring of 1872 the Santa Fé road had been opened to Great Bend on the Arkansas River, and a branch south from Newton to Wichita had been completed. Most of Newton's business in handling range cattle then was transferred to these new shipping-points, of which Wichita became the more important—nearly 80,000 head of cattle being shipped from it during the first season; and the flocks of harpies abandoned Newton for these newer scenes of activity.



View in Great Bend City in 1873.
(*From McCoy's "Sketches of the Cattle Trade."*)

This human riff-raff started out in Wichita on the Abilene line as soon as the railroad was opened. No one complained of a lack of spectacular effects or of undue regard for conventionalities in Wichita during the first season. But by the opening of the second the town had begun to grow so fast and in a very substantial way that imitations of Abilene could not and would not be tolerated by the class of citizens who were making a solid place of it. So the town, then of somewhere near 2,000 people, soon settled down to what was considered a steady gait, and never after changed it.

Construction of the Atchison, Topeka & Santa Fé Railroad westward had progressed rapidly, and, as we have mentioned heretofore, its tracks reached the east line of Colorado in December, 1872. This had resluted in the rising of a fireworks cowtown of the first rank in southwestern Kansas—the famous and infamous Dodge City, in which for several years life was "enlivened" by about everything that was implied by the term "wild and woolly." The place now is a quiet railroad town of about 2,000 inhabitants, but in the '70's its fame as a lawless cowtown was second only to that which Abilene previously had attained. While, upon the whole, it was not equal to Abilene in general spectacular effects, it became in some respects even worse. It is probable that there were more homicides—many of them of the most cold-blooded character—in Dodge City than in any of the cowtowns.

Dodge City was laid out on rather broad lines, and was ambitious as well as confident of becoming a metropolis. During its career as a cowtown about three out of every four of its "business establishments" consisted of "saloons" with annexes for dancing, of gambling dens, and of still shadier "resorts" and dives. As the cattle-trade upon which it depended mostly was of Texas origin, the "Lone Star" stared and shined everywhere in Dodge City. There was a general pandering to the Lone Star sentiment, and lone stars abounded in all sizes and hues. Saloons, cheap-clothing shops, "hotels," dance-houses, and various other outfits bore the Lone Star trade-mark. When the place was in it worst the spirit and atmosphere of coiled and utter vileness that hung over it disclosed the passion, the crime, the depravity that made it infernal. Through the day during the shipping season the streets were thronged, and the saloons and dance-houses were clamorous with profanity, ribald songs, shouts, yells, and half-drunken laughter. At night there was all there that had been through the day, and much more, and the iniquity of the place then stood out at its worst. An inflamed and quivering fierceness crept into the busy music in the turbulent dance-houses, the clamor and brawling in the saloons became more and more uproarious, groups of whooping, drunken men kept up a fusillade in the streets as they shambled from one "resort" to another. A cluster of men around an object upon the ground, or an unusual bustle at the entrance to one of the saloons or other dives signified to the onlooker that somebody had "passed in his checks."

After the Santa Fé road had entered Colorado the station of Granada was made a cattle shipping-point, and which developed some of the usual cowtown features. But it soon gave way to West Las Animas, near the confluence of the Purgatoire and Arkansas Rivers in Colorado. By the way, the cowboys had changed the name of the lesser of these streams to "Picketwire," which was easier for the English-speaking tongue to manage. West Las Animas became a shipping center for the stockmen of southeastern Colorado and of New Mexico; and, as befitted its name, developed into a place of great animation. With the disorder, violence, and crime that made West Las Animas notorious for a few years, the clashing of race prejudice had much to do. Among the stockmen of southern Colorado and of New Mexico there were many Mexicans; and when American and Mexican cowboys were on a "tear" at the same time, which was not an uncommon occurrence, the possibilities for trouble were large and numerous. However, as a truly wild and woolly cowtown, West Las Animas never got higher than about the third grade.

The town of Kit Carson on the Kansas Pacific road in eastern Colorado was a worse place than West Las Animas, though now it is but a mere shadow of its former self. It was not a cattle-trail town in the true sense of the term, but about the time that West Las Animas became one the Kansas Pacific Company, in order to get a share of the Las Animas business, built a cheap connecting branch fifty or sixty miles in length between the two towns. This made Kit Carson a junction-point, and independently it made itself an ugly and vicious place for a few years. The cattle traffic over the branch road did not last a great while, and upon its decay the branch was stripped of its rails and abandoned, and Kit Carson soon afterward sunk into obscurity.

Hays City, Kansas, on the Kansas Pacific, about 150 miles east of the Colorado line, was one of the noted "bad" towns of the West thirty-five years ago. Some trail-cattle from the South were driven there for shipment eastward before the construction of the more southerly Santa Fé Railroad had intercepted the trade. However, Hays City was a cow-and-railroad combination of nearly 2,000 inhabitants; but most of them hardly could be called citizens. About a hundred gambling dens flourished there, saloons were next to innumerable, and all the other appendages of such places were in great plenty; while shooting-affrays, often of fatal termination, were of daily and nightly occurrence. Wild Bill was Marshal of Hays City (now an insignificant place) before he went to Abilene to take charge of that town; and in about a year added, while in discharge of his duties, a half-dozen or so to the number of men he had sent out of the world with his incredibly ready revolver.

View in Dodge City Soon After Its "Glory" Had Departed.
(From an old photograph.)

In the northern parts of the range-cattle country no cowtowns comparable with Abilene or Dodge City ever were developed, although there were several "cities" in that direction in which daily life was not a stagnated form of existence. Among these were Cheyenne and Laramie City in Wyoming. However, their reputations for wildness in these good old times to a large extent were due to conditions having no relation to the cattle business.

Cheyenne was a railroad center and also the rendezvous of a swarm of land pirates and other ruffians of every degree; and of its business the cattle trade, while it was large, formed only a part, and therefore was not wholly responsible for the character of the town. But the place had, nevertheless, ample facilities for entertaining visitors who had trailed in from the ranges, as many a poor fellow learned to his undoing.

Laramie was nearer to the real thing, as measured by the Abilene standard or by that of Dodge City, but as it was the headquarters for an important part of the Union Pacific's operative administration it also was not altogether a cowtown. While it was rough and tough enough much of its fame over the country, especially in the East, as a "bad" place, was due to the whimsical exaggerations of "Bill" Nye in his newspaper, the *Laramie Boomerang*. In the main, however, Laramie depended for its support upon the business of the stockmen, being the outlet for a large region of range country. It was no dull town in those days, but to tell how and why it was not, merely would be a going over of things with which the reader already is famiiiar.

Miles City, Montana, attained a modified distinction in the cowtown line, having for several years held forth most of the usual cowtown "attractions." But its sphere of influence was local in extent, and furthermore garishness was not quite so effective upon the general run of the northern rangemen as upon those of the South, who made pilgrimages to the old wool-bearing cattle-towns of Kansas; for it is to be remembered that the cattlemen, including the cowboys, of the far-Northern ranges, as a class were more conservative in many ways than were those of the central and of the southern parts of the range country.

President Roosevelt, writing in the middle '80's, referred to Miles City as being "a true cowtown," but apparently he did not mean the kind of cowtown with which we have been dealing here; not such as the all-wool-and-more-than-a-yard-wide Abilene, or Dodge City, of the earlier period. It is certain that neither of these in the days of its cowtown "glory" would have stood for any such tame diversions as horse races. Of his impressions of Miles City and of the people he saw there in the middle '80's, Mr. Roosevelt, in his "Ranch Life and the Hunting Trail," says:

"A true 'cowtown' is worth seeing,—such a one as Miles City, for instance, especially at the time of the annual meeting of the great Montana Stock-raisers' Association. Then the whole place is full to overflowing, the importance of the meeting and the fun of the attendant frolics, especially the horse races, drawing from the surrounding ranch country many hundreds of men of every degree, from the rich stock-owner with his millions to the ordinary cowboy who works for forty dollars a month. It would be impossible to imagine a more typically American assemblage, for although there are always a certain number of foreigners, usually English, Irish, and German, yet they have become completely Americanized; and on the whole it would be difficult to gather a finer body of men, in spite of their numerous shortcomings."

Texas, the great patron of the whooping old cowtowns of Kansas, had nothing like them herself. The Missouri, Kansas & Texas Railroad, the first line to Texas from the North, was completed into the northeastern part of that State in the beginning of 1873, and by the autumn of that year it and its connections afforded a very direct route through to Chicago. Gainesville and Fort Worth soon became important cattle-shipping points, but they were not characterized by vice, lawlessness, and crime; and the same may be said of several other Texas towns that later became prominent in the cattle-shipping trade. Of course these towns were not free from disorder, but what they had of it was incidental and not dominant.

In after-times, when the great western and northwestern range regions of Texas became occupied some of the hamlets and little towns that were widely scattered over the vast expanse of country, and that served merely local constituencies, were, in proportion to their small size, the scenes of much dissipation and of many sudden deaths. Tascosa, where the Fort Worth and Denver City Railroad now crosses the Canadian River, was an unusually illustrious example of this type of range cowtown; a type, however, that was common a quarter of a century ago in most parts of the range country from the Mexican border to the Canadian boundary. Tascosa provided itself with a graveyard on a swell in the prairie near by, and the character of the town was reflected in what was asserted as a fact that graves for more than fifty men had been dug there before the first was made for one who had not died with his boots on. Hence the prairie swell very appropriately was called "Boot Hill," as it is known to this day.

Boot Hill! We may smile at the humorous grimness of the name, but after doing so we should think of the tragedies for which it stands, and bear in mind that, while the town of village dimensions has its graveyard that was "started" in this manner, each of the "wild and woolly" cowtowns that have been recalled on these pages had its more populous Boot Hill. Nor were all the tenants of these various Boot Hills "bad" men. The mouldering bones of many a poor cowboy whose only "badness" was his recklessness amid scenes that were so different from those of his life on the great lonely range and on the trail, lie in these Boot Hills; of brave and generous men who would, as most of them had done, willingly have risked their lives for the sake of their comrades without ever a thought of heroics. Along with these tenants of the Boot Hills rest what is left of many other poor fellows whose lives were snuffed out by brawlers and professional "bad men" who were without provocation for adding to the crimes that already had blackened and outlawed them.

But the wild and woolly railroad cowtown long has been extinct, and the little hamlets and villages of the range country have mended their manners greatly. While the former were the offspring of railroads, it was the further extension of railroads that deprived them of their "glory" and caused them to become orderly, soberminded, and substantial communities. Almost every station on every railroad traversing the western cattle country became a shipping-point for its neighborhood, and so the business that had been concentrated at these primitive centers was widely distributed. As to the villages and hamlets, it is not to be understood that they have taken on a Puritanic character, but they have, to a marked degree been changed by the influence of the more exacting and more businesslike methods that have prevailed in the range-cattle industry during the last fifteen or twenty years. They contain a general store, usually that of some sedate "mercantile company," or perhaps two or three of these, the postoffice and a "hotel" bearing a pretentious name that inspires hopes destined soon to be cast down; and, invariably, several "places" in which the inner man may be spiritually refreshed. But they are far away from the wild and woolly of old times.

In the memories of veteran cattlemen who recall, from personal observation, the scenes, tragedies, and incidents of life in such places as Abilene and Dodge City when these were a their worst as railroad cowtowns, time has not softened the hideousness of the uproar, turmoil, vice, and crime that were in command; nor can these men place themselves in sympathy with any attempt of the story-maker to veil the horrible conditions in an atmosphere of romance.

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Yours Truly
C C Slaughter

Colonel C. C. Slaughter.

Dr. Samuel Johnson once remarked that he never passed a person in the street without a desire to know his biography. This profound student of human nature recognized the tremendous value of individual experience in shaping the destiny of human life. He recognized that the study of man is one of the most interesting and important subjects presented to the mind. In these modern times, especially, as the struggle for money and position becomes more intense, it behooves every young man to study closely his own abilities and to understand, as clearly as he may, the steps by which the successful men have gained their places. For it is evident that he who has sounded the depths of his own possibilities and gauged fairly the heights of his successful neighbors, has a strong and sure foundation on which to build a lasting structure.

The successful men are the men who set the pace for the world. In whatever field they may be found—whether in science, religion, politics, or in the great world of business—these men are the princes whose magic touch changes fear to confidence, doubt to certainty. Their watchword is ever "Onward!" Keen of comprehension, fertile of resource, indefatigable in everything their fertile brains or busy hands find to do, they recognize no such word as fail. They judge only by results, and by their overpowering genius and masterful will they bend every circumstance to do their bidding. It is an inspiration to grasp the hand of a successful man. The blood tingles in the veins; a new hope enters the heart. A silent message, borne, perhaps, upon the mysterious wings of telepathy, finds its way to the very center of one's being, and from that moment a confidence is born which leads to an entire change of front. It is as the laying on of hands or the patriarchal blessing of olden times; new desires, new impulses are aroused, the smouldering spark is kindled into a flame, the latent ambition is stirred into life, and henceforth the path broadens until in many instances it becomes the highway leading to fortune.

Nothing is impossible to the aspiring mind that will not permit itself to be discouraged by seeming failure. Our limitations are those that we ourselves rear. Among the world's greatest benefactors are those who were born in the midst of the gravest obstacles. The boy who has a hard time in his early years but who becomes enamored of right principles and who has an inborn spirit of industry and independence, cannot be held back in the race. If he has within him the indescribable quality known as the *initiative*, he easily becomes a leader. It is to men of this stamp that civilization owes its advancement.

Colonel C. C. Slaughter, of Dallas, Texas, belongs among those who lead. He was a child of the frontier. The first male infant born in Texas after its declaration as a republic, he has been identified actively with the progress of the Southwest for more tthan fifty years. No man in Texas has passed through greater vicissitudes, and it is doubtful whether any man in Texas has been more abundantly blessed with success. Whether viewed from the standpoint of financial achievement or as a useful citizen, Colonel Slaughter—"Lum" Slaughter, as he is familiarly known among his associates—is one of the most remarkable and interesting characters the peculiar conditions of Texas for the last half century have produced. The name of Colonel Slaughter is known wherever the livestock industry has made its way, and his beneficences are spoken of with the same breath that pronounces him one of the greatest of cattlemen. Colonel Slaughter, as is shown in his biography, is a typical cowman, and his example has been of immense importance in advancing the industry to which he has devoted his life.

From his earliest recollection he has been in love with the prairie. The free air, the boundless vision, the weird figures that stalk in the far distant horizon, appealed to his imagination and stirred him to do and dare, while many, held back by doubt and fear, hesitated. A natural frontiersman and a born trader, Colonel Slaughter went upon the open range at his own volition when a boy, his clear vision foreseeing the opportunities that later attracted the attention of hundreds of the greatest capitalists of the world and led to the establishment of the industry upon an enduring basis. First as a cowboy; then upon the cattle-trail; next as manager; finally as owner of some of the largest ranches and greatest herds Texas has known, Colonel Slaughter has scored a succession of victories which will ever make his name famous in the history of the range. He is an inseparable part of the growth of the Texas cattle business from the years before the Civil War to the present time, and at the age of sixty-eight he has the mental ability and physical vigor of a man in middle life. Such is the effect of many years spent upon the open range where the brain and the body draw forces from the earth, the air, the sunlight, and all the bounteous store-house of Nature.

Although he has, in the course of his career, engaged in other lines of business apart from the cattle industry, Colonel Slaughter's chief interest has remained with the range. While circumstances have often led him into other investments —as banking, real estate, or merchandise—his heart has always remained true to the great work to which his principal thought has been given, and with which his name will always be associated. With him it has been, "Once a cowman, always a cowman." For him there is no happiness that exceeds the delight of a horseback ride on the ranch within sight of the cattle whose development has been his study and whose care is his chief aim. The genuine cowman is a unique figure, and is always seen at his best in the midst of his loved surroundings. Then it is that he becomes young again, and lives once more the thrilling life of the early days. Nobody can appreciate this so forcibly as the one who has met the veteran in his own domain and heard him recall, with tones of pride, the scenes and tragic incidents of long ago.

In addition to gaining a position in the front rank as a range-cowman, Colonel Slaughter will long be remembered with gratitude by wives, widows and children of soldiers of the Civil War. During the troublous period of the war, he was on the frontier of West Texas, and one of the duties to which he devoted himself was the relief and protection of helpless ones who were in need. It is difficult to express the sentiment that is aroused by memories of those crucial times, but men like Colonel Slaughter who voluntarily performed the double service of repelling the bloodthirsty Comanche and relieving the necessities of women and children whose legal protectors were battling on far distant fields—these men will be held in grateful memory as long as noble deeds are recognized by the human soul.

Colonel Slaughter was one of the founders of the Cattle Raisers' Association of Texas—of which he was the second president—and filled the position of president of the Texas Confederate Reunion Association, at Dallas, at the time of the Reunion of the United Confederate Veterans in 1902, one of the largest and most successful gatherings of soldiers of the war ever held in the South. In furthering this assemblage, he visited Washington, and enlisted the assistance of the Texas delegation in Congress, so that Congress by unanimous vote granted the use of 1,000 army tents for the accommodation of the old soldiers. Abounding in resources and capable of accomplishing anything he undertakes, Colonel Slaughter occupies a large place in the State he is proud to name as his own. His influence, financial and moral, has been extended to scores of worthy enterprises. Educated mainly by contact with men and nature, he has been governed through life by a certain largeness of soul, a distinguishing feature of leaders now passing from the stage. This characteristic, in a remarkable degree, belonged to the early settlers of the Southwest, and led to deeds which have given to Texas a romance whose halo will ever claim the interest of the poet and historian.

C. C. Slaughter was born in Sabine County, Texas, on the 9th of February, 1837. His ancestry dates prior to the Revolution in America. His father, George W. Slaughter, was one of the most favorably known men in Texas. He came to Texas in 1830 with his parents when it was the Mexican State of Coahuila, and assisted in the noble cause which won the freedom of the republic. For sixty-five years he was intimately connected with the growth of Texas. He was a farmer, cattle-raiser, and pioneer minister of the gospel, traveling hundreds of miles on horseback to meet his ministerial engagements, and never hesitating on account of danger from Indians. He participated in many fights with hostile savages, and often preached in the rude frontier church with his trusty rifle and revolvers within reach.

The mother of C. C. Slaughter, before her marriage, was Miss Sarah Mason, a woman of lofty character and a worthy helpmeet to her pioneer husband. Eleven children were born to Mr. and Mrs. Slaughter, of whom C. C. was the oldest.

One of the early recollections of Colonel Slaughter is of a small herd of cattle on the hills of Sabine County, the property of his father. Here the boy received his introduction to the cattle business. Texas was at that time a great area, little known, inhabited mainly along its eastern and southern portions, the possibilities of its climate and soil unknown. The cattle industry had hardly started, and the only market was in the larger communities or at New Orleans, reached by steamboat from Shreveport. A strong tide of immigration was moving into Texas. These immigrants were from all the States east of the Mississippi River, and the marvelous work they accomplished in subduing the wilderness is evidence they were of "the salt of the earth." No difficulties daunted them; no sacrifices were deemed too great. The settlers of Texas, as a class, were honest, industrious, moral, independent, generous-hearted, risking everything they had in a laudable effort to establish a home for their families.

In speaking of the men he met early on the plains, Colonel Slaughter said: "I really think it required men of a very high type to face the dangers of the Southwest and overcome the difficulties that were presented. The conditions called for men with brain-power, energy, pluck, and unalterable determination. The weaklings soon dropped out of sight in the constant struggle. It was the survival only of the fittest. A man had to be willing to face almost anything and he must have had a clear head to take care of himself in those times. On the frontier, in a striking degree, every man was the architect of his own fortune, and some of the men to be met with there ranked favorably with the brightest minds of the world. Some of the early cowmen were ideal managers, and they had the talent to succeed anywhere."

At twelve years of age young Slaughter went upon his first long drive. His father removed ninety-two head of cattle to Prather's Prairie, on Trinity River, in Freestone County, Texas. The distance to the new range was about 250 miles, and the trip was an important event in the experience of the future cowman. It gave him a practical knowledge of moving cattle on the trail—a feature of the industry in which Colonel Slaughter excelled during the years when hundreds of thousands of Texas cattle were being sent over the trail to Northern markets. He became one of the great trailmen. At the Trinity River ranch he assisted an uncle, who owned an interest in the herd. Later, at the age of seventeen, when his father had moved to the Freestone County location, young Slaughter went upon a trading expedition, in the course of which he bought supplies at one point on the frontier to deliver at another, clearing $520 during an absence of three months. This experience was the foundation that led him to embark in the cattle business. He bought out his uncle's interest in the herd, and at eighteen years of age he was a full-fledged cattleman, the owner of more than seventy head of cattle, and launched upon life's career with all its interesting possibilities.

The cattle-trail to Shreveport led across Trinity River in the vicinity of the home of the Slaughter ranch. The river was frequently swollen beyond its banks, and, in assisting the herds to cross the river, Mr. Slaughter arrived at the conclusion that cattle from the Brazos River were of a more desirable quality and size than cattle grown in East Texas. The stories of the drovers excited his curiosity, and he decided to visit West Texas and see for himself whether conditions were as favorable as described. The elder member of the family objected, but the arguments of the young man finally prevailed, and the summer of 1855 was spent by father and son upon a trip into West Texas. The journey led them to the headwaters of the Colorado River and over hundreds of miles of territory where a cow had never set her foot—the undisputed home of the Indian and the buffalo. As the Indians and whites of Texas were then at peace, the journey was performed without serious adventure, and a new home was selected far out on the frontier.

Palo Pinto County was, fifty years ago, the ideal spot for a cowman; a broken country, watered by scores of clear, running streams, the valleys occupied by natural meadows whose grass was higher than a horse's back. Palo Pinto has never been excelled in the world as a live-stock range. The Slaughter Ranch was located five miles north of the present town of Palo Pinto. In 1856 the young cowman conducted the herd, now numbering 1,500 head, 300 miles to the Palo Pinto Ranch, where he superintended the erection of a home for his father and mother. Fort Belknap was within convenient distance, and in a short time he was delivering beeves to the fort, and also carrying on a paying beef business with the Indian agents at the reservations of West Texas. All was moving smoothly, and the fortune of the adventurous young cowman was rapidly accumulating, when suddenly an angry cloud appeared on the horizon.

War was declared between the whites and the Indians. It is claimed by officers of the United States Army that an unprejudiced investigation as to the causes of the wars between the white man and the Indian leads to the conclusion that in every instance the fault lay with the white man. Whether this be true or not, there is no doubt a tremendous responsibility resting upon a roving party of rash frontiersmen, who fired in the night-time upon a number of Indians peacefully camped on one of the streams of Palo Pinto County. This was in 1857. For several years the Indians of the frontier had been collected on two reservations—the Brazos and the Clear Fork—and depredations had been comparatively few. The unprovoked night attack, resulting in the death of men, women, and children at the camp-fire, aroused their friends and relatives to intense hostility, and steps were taken for immediate reprisal. Mr. Slaughter was one of the first to learn of the flame that had been kindled and, losing no time, he hastened on horseback toward the Indian agency, thirty miles away. He was well acquainted with the Indians, and was determined to do what he could to prevent a general uprising. His apprehension proved too true. He met a large band of the Indians in full panoply of war on their way to bury the dead and then to take the warpath. By urgent argument, and by showing that the settlers of the region were innocent of harm to the camping party, he succeeded for a time in warding off the blow. The Indians returned to the agency, but a storm was aroused which had been brewing for many months, and both sides prepared for war.

Once under way, it was fifteen years before the last fatal shot was heard in Palo Pinto County. All West Texas was drawn into the conflict, and at times as many as 500 or 1,000 plains warriors dashed along the frontier, carrying death and destruction in their path and ruining the fortunes of cattlemen from the Red River almost to the coast.

The withdrawal of the troops of the Federal Government during the Civil War required special protection to be provided by the settlers themselves, and companies of minute men were organized in various border counties. Mr. Slaughter was chosen as captain of the company recruited in his region, and he retained the office as long as the service was considered necessary. He was in the saddle many months fighting Indians, and thus gained an intimate knowledge of West Texas, its water-courses, and the best grazing grounds. As early as 1860 he was with Captain S. P. Ross at the head of Pease River, when Cynthia Ann Parker was captured from the Indians and the Comanche chief, Petra Nocona, lost his life.

Throughout the Civil War the Indians were intensely hostile and many settlers abandoned their homes in West Texas, returning with their families to more thickly settled communities in the eastern part of the State. Cattle were turned loose upon the plains to wander at will, and a condition of uncertainty prevailed which was controlled only by the indefatigable spirits who yielded to no discouragement. These men supplied food and clothing to the weaker members, and with tireless vigilance held back the enemy until a brighter day began to dawn.

Mr. Slaughter bought many cattle from retiring settlers upon such terms as the unsettled state of the country allowed, remaining at his post until the close of the Civil War, and danger from at least one quarter was no longer threatened.

About this time the attention of many persons was attracted to Mexico. Almost exhausted by years of exertion, Mr. Slaughter decided to accompany a party of his friends bent upon looking into the resources of the sister republic. Among the party were Charles Goodnight, Colonel Kit Carter, George Lemley, and Dick Jowell. On Devil's River, as described elsewhere in this volume, Colonel Slaughter was wounded by the accidental discharge of a rifle, narrowly escaping with his life. The bullet passed under his right shoulder-blade and lodged against the breastbone. For four weeks his companions daily expected him to die, but he finally recuperated to such an extent that he was conveyed on a litter, suspended between two pack-mules, to the nearest settlement. The wound did not heal for an entire year; but it was evident that Providence had other work for Colonel Slaughter to do, and that his field was to be in Texas rather than in Mexico. He was confined to his home during the larger part of 1867, and the reports as to his scattered herds were so gloomy that he offered to dispose of his entire possessions for $10,000. Luckily, he found no purchaser. The turn in the tide had been reached.

In order to raise money he gathered 300 fine steers together, and started east toward the market. At the ford of the Trinity River he met a buyer who had a contract to supply cattle at a packery which was in operation at Jefferson, Texas. Colonel Slaughter entered into a contract which quickly enabled him to pay off all his debts, and encouraged him to go upon the trail to a more distant market. One lot of 300 grass-fed steers, netting 703 pounds each, which he delivered at this packery, brought him five cents a pound, or $35.00 per head in gold. The figures show the prolific capabilities of the early range.

The trail to the North was now opening, and Texas cattlemen were about to reap the richest harvest ever known in the cattle business. The long labors of years were about to be rewarded. The cattle could walk to market, although it was a thousand miles away, and the road was beset by dangers from prowling Indians, the perils of the midnight stampede, or the annoyances of swollen streams, or hidden quicksands. The story of the trail is one of the most romantic chapters of early days. At the same time the trail proved to be the salvation of the Texas cowman, and out of it grew fortunes whose benefits are reaped by thousands to-day.

The first trail-herd of Slaughter & Son consisted of 800 head of cattle and was disposed of for $32,000. In 1869 a herd of 2,000 cattle was put by them upon the trail and brought $32,000. Other figures are: 1870, 3,000 head of cattle, $105,000; 1871, 2,000 head, $66,000; 1873, 2,000 head, $66,000; 1874, 2,000 head, $60,000; 1875, 1,000 head, $45,000.

In 1876 Colonel Slaughter and his father dissolved partnership, and the business of the former has since that time been conducted in his own name.

The Chisholm Trail, which was reopened by Colonel Slaughter in his first trip to Kansas, was laid out by a half-breed Indian named Jesse Chisholm, who drove horses and cattle from Texas to the western part of the Indian Nations as early as 1840. Chisholm bought the horses from the plains Indians, who stole them from the white settlers or from each other. The route which Colonel Slaughter followed became one of the principal cattle-trails, and should be distinguished from the Chisum Trail, first opened by John S. Chisum, which passed up the Pecos River in New Mexico.

In 1871 Colonel Slaughter disposed of his ranch interests to Messrs. Loving, Rivers & Johnson, taking payment in cattle, which he sold at a great profit in Kansas. He had observed the advantage of improving the breed, and his next step was of high importance to the industry in Texas, and marked a departure which was extensively followed. He bought several thousand carefully-selected heifers, and imported from Kentucky one of the largest shipments of pedigreed Short-horn bulls ever brought into Texas. The firm of C. C. Slaughter & Company was incorporated to operate in high-bred cattle upon a scale never before attempted in the Southwest. A few years later Colonel Slaughter bought out the company, and since that time he has been one of the most liberal buyers of pedigreed stock in the United States. Price has never deterred him from buying an animal when he considered it desirable for any of his herds. Ancient Briton, Sir Bredwell, and Protection are among the noted bulls he has owned. Ancient Briton carried off the coveted prize at the World's Fair at Chicago, and this noted prize-winner, as well as eight of his sons, including Christmas Gift, came into possession of Colonel Slaughter. Colonel Slaughter pronounces Ancient Briton as the greatest Hereford breeder ever in the United States, and Sir Bredwell as the finest type of Hereford ever exhibited in this country. Magnificent paintings of these noble animals are on exhibition at Dallas.

As a result of introducing improved blood into the Texas Long-horn, Colonel Slaughter was able as early as 1882 to ship to the market at St. Louis eleven carloads of three and four year old steers, which netted him $7.00 per 100 pounds. He was at one time offered $1,000,000 for one of his ranches; and he has branded as many as 18,000 calves in a single season. One of the ranches over which his cattle range on the Colorado River, measures fifty miles in one direction and eighty-five miles in the other. A ranch of 89,000 acres in Hale and Lamb Counties, Texas, is another of his landed possessions. Still another Slaughter ranch, in Hockley and Cochran Counties, Texas, contains over 300,000 acres of patented land. It was his custom for years to maintain 10,000 steers in Montana. All the operations of his immense live-stock business are carried forward in a manner as thoroughly systematic as the banking or railroad business. Year after year the work has grown until it has become a permanent organization which a younger generation will carry forward upon thoroughly tested principles after the founder has been called away. The great business in live stock which has been built up by Colonel Slaughter is a magnificent monument to the brain that could conceive and the will that could put into execution the numberless plans necessary for its accomplishment.

Colonel Slaughter's experience as a banker dates from 1873, when he assisted in establishing the City Bank at Dallas. In 1884 he secured a charter for the American National Bank of that city. He has acted as vice-president of this institution since it was founded.

He has been twice married. His first marriage was in 1860 to Miss Cynthia Ann Jowell, daughter of James Jowell, of Palo Pinto County. Five children were born—George M., Minnie, Dela, R. L., and E. Dick. In January, 1877, Colonel Slaughter was married to Miss Carrie Averill, daughter of Rev. A. M. Averill, of Cambridge, Massachusetts. Four children have been born of this union—C. C., Jr., Alexander Averill, Carrie R., and Nellie Louise.

The successful man is the man who finds the place for which he is adapted and through self-control and diligence develops the powers nature has given him for a beneficent end. Fortunate is he who early embarks in a business that enlists all his best energies. Colonel Slaughter was endowed by his parents with more than the ordinary allotment of mental ability, and he has made use of his talents so as to advance the interests of many individuals and entire communities. Such men furnish substantial reason to the philosophical mind for pride in humanity.

The Old Cattle Trails.

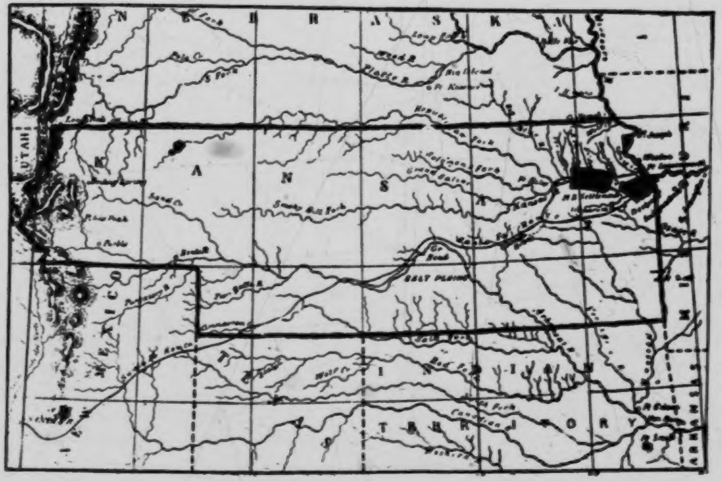
An Interesting Old-Time Feature of the Range-Stock Business.—The Earlier Trails in the West.—The Santa Fé Trail.—Uniqueness of the Cattle Trail.—"Romance" of Life on the Trails.—The Unromantic Reality.—First Trail Herds.—Cattle Trails from the South After the Civil War.—The Trails Into the Northern Range Country.—Trail Drovers and Their Helpers.—Sinuous Form of a Trail Herd.—Development of Trail Leaders Among the Cattle.—Crossing Rivers.—Rate of a Trail Herd's Progress.—Behavior of Cattle on a Trail.—Methods of Trailmen and Management of Trail Herds.—Trailing Cattle Across the Staked Plain.—Hardships of the Journey in Waterless Seasons.—Remarkable Faculty of Cattle for Detecting the Odor of Water from Great Distances.—One-Time Proposed Great National Live-Stock Highway.—Displacement of the Cattle Trails by Railroads.—Surviving Traces of the Old Trails.—Present Miniature Representatives of Trail Herds.

No old-time feature of the range-stock business was more picturesque or more interesting than that of the movements of herds of cattle going to markets, or to fresh fields and pastures new, over winding trails, followed by no other travelers, that stretched away across the rolling plains, throguh valley meadows and over mountain ranges, to terminations hundreds of miles distant.

There were various kinds of trails in our vast western country long before the first trail-herd of cattle had been put in motion by Americans. The Spanish-Mexicans had had for many years established routes of communication between Old Mexico and their northern provinces of Texas, New Mexico, and California, and drove live stock over them. But these stock movements—mostly of sheep and cattle—were not, according to the standards of our range-stockmen, of much magnitude, and the routes they followed were used also by such ordinary travel as passed between these provinces and the older country. The Indians usually moved along familiar paths when they made seasonal changes in the locations of their villages, and often did so when they went forth for war and plunder. In the palmy days of the fur trade in the Rocky Mountain country—from 1825 to 1845—the trappers and traders had established routes from the Missouri River, and some that led all the way by land to St. Louis. The famous Santa Fé Trail had been a highway of commerce from the first quarter of the nineteenth century; the old Oregon Trail had become plainly marked within a few years after "Pathfinder" Fremont first saw the Rocky Mountains; and the California Trail, by way of the South Pass, over which a host of gold-seekers passed during the middle years of that century, soon had been given the appearance of a permanent roadway.

As the reader has learned in a preceding part of this volume, some live stock going to a market—cattle and sheep—was driven to California over the old "California Emigrant Trail" both before and immediately after the Civil War, but there was hardly enough of this business to give to that route the distinction of having been a stockmen's trail. The Santa Fé Trail essentially was a route of commerce, but as parts of it were often traversed by cattlemen with their droves in the years before the railroads put cattle trails out of business forever, and as it is so intimately associated with the history of the central and southwestern parts of the plains country, an outline of its history may not be out of place here.

The first trading expedition to Santa Fé by citizens of the United States was undertaken in 1812 by a party of twelve men of St. Louis under the leadership of "Captain" McKnight. These people, after entering the present Kansas, followed very nearly the course of the Santa Fé Trail, as laid down on the accompanying reproduction of an old map. Several years later, an adventurous trader hailing from Ohio, and named Glenn, with a little caravan conveying various kinds of American goods, reached Santa Fé by practically the same route as that which had been traversed by McKnight's party. From this time various other American traders were attracted to Santa Fé, and caravans of them went forth and back each year. American goods became popular among the Mexicans, and sold at high prices; common calicos, and even plain domestic cottons or unbleached muslin, commanding at one time as much as $3.00 per yard; but the journey was a long, expensive, and perilous one. Down to 1824 only pack-animals were employed; in 1824 and 1825 pack-animals, and wagons drawn by horses or mules; and commencing in 1826, nothing but wagons. It was not until 1830 that oxen began to be used. The traders went in companies or caravans for mutual protection. They chose from their number a "Captain," who directed the order of travel, selected the camping-places, and exercised a general supervision. While he had no legal authority, yet all by common consent obeyed his directions. Vigilant night-guard was maintained, a duty from which no man in the company, whatever his circumstances and position, was exempt. The time occupied in making the passage from Independence, Missouri, to Santa Fé varied considerably according to circumstances, yet an average trip with loaded wagons required about seventy-five days. As New Mexico then had little worth exporting to the States, return loads were light, and the eastward trip usually was made in about forty days. Upon one occasion a young man named F. X. Aubrey rode from Santa Fé to Independence in five days and ten hours. After the United States acquired New Mexico the business of the trail increased rapidly, new and large commercial establishments were founded in Santa Fé from which the entire New Mexico-Arizona country, and a large part of northern Old Mexico were supplied with American products. The trail continued to be the route of travel and commerce between the States and the Rio Grande country until after the Civil War and until railway construction afforded better ways and means. The course of the Atchison, Topeka & Santa Fé Railway for a large part is very nearly that of the Trail, and in numerous places its track is actually upon the line of this old roadway. Of course there were many tragedies. Indians did much bloody work, and murderous white bandits contributed a full share. The bones of hundreds of men lie buried along the Trail, and if their graves had been marked by posts the height of a man. these would have served in the closing years of caravan travel to guide the wayfarers over much the greater part of the route from Independence or Leavenworth to Santa Fé.



Map Showing the Route of the Old Santa Fé Trail.
(From Smiley's "History of Denver.")
The heavy outline of Kansas Territory, which was on the original, is of no significance here.

But the cattle trails were propositions widely different from the Santa Fé and the other old trails that have been mentioned in the foregoing, and the associations that cling to their history arose from circumstances equally different from most of those that were identified with the others. Indeed, in the development of our western country the life on these trails had no counterpart among the other occupations and enterprises in which adventurous men sought to better their worldly condition, and as a business it required from those engaged in it the combination of military and commercial qualities in an unusual degree. A herd of cattle on the trail had to be managed, moved, and guarded much as an army is when marching in an enemy's country, and often in the earlier years Indians made exceedingly realistic demands upon the military side of the undertaking. On the other hand, while the range-cattle business generally has been from its beginning peculiarly subject to disaster from unforeseeable causes, and while it always has had a strong tendency to make many of its followers the most sanguine of men and to induce them to "take chances" and "trust to luck," the trailmen who used the sounder judgment in selecting cattle for a trail-herd bound for a market, and exercised the greater commercial sagacity in selling them, fared the better, whether the year happened to be one of fatness for all cattlemen or a lean one that threw its net results on the debtor side of almost every stockman's balance-sheet.

Time in its gentle manner has caused a haze, something like that of Indian summer, to drift in between us and the life on the old cattle trails, and as the years go on this haze more and more will soften to the view the outlines of the harsh aspects and conditions of that life, while the "romance" of it indefinitely will continue to cling to the history of the Great West, and to afford, as already it has to many, popular themes for writers of songs and stories. Many interesting reminiscences of adventures and incidents on these trails are incorporated into the biographies of old-time cattlemen, which constitute valuable portions of this work; and at the present time nothing lends so great a charm to a night-gathering of the human part of a ranch outfit, with the glow of the firelight falling upon the faces of the group, as a re-telling of stories of the trail by some gray-beard of the range, who is pardoned in advance for any flights of imagination with which he may, perhaps inadvertently, further illuminate the tales of his experience. While the younger men listen with absorbing interest, they are carried in fancy back to scenes and dangers that belong to a closed era in the range-cattle industry, and that never again will be.

But we should not close our eyes to the fact that from the historical point of view life on the cattle-trails had much in it that was most unromantically hard, laborious, and wearisome; and also that while heroism to death often was displayed in encounters with hostile Indians and upon other occasions, the pale messenger lurked in unheroic form along the way and at many of the destinations.

Like every other conspicuous feature of the range-cattle business in American hands in these earlier times, the cattle trail was a Texas-born institution. While cattle had been driven from that State to New Orleans and to other places in that section of the South in preceding years, the first trail-herds in the true sense were those driven from Texas to California early in the '50's of the last century by way of southern New Mexico, which Territory then extended west to the eastward line of southern California. The routes through New Mexico followed by these drives were, for most of the way, those over which other travel was passing to the "land of gold." Early in the last half of that decade, as we have related on a preceding page, the Texans began driving cattle to the North, St. Louis being the principal objective point. These northward-bound herds were taken through the general region of the Arkansas-Indian Territory boundary line to southwestern Missouri, and thence northeast through that State. The southerly part of the journey was over roadless stretches in true trail fashion, but in Missouri the cattle had to be driven on the rough "country roads," which, it may be said, probably were as bad as any under the sun; and, moreover, they were very hard on cattle reared on the soft prairie meadows of eastern and southern Texas. But the drives to the North in that period, while they increased in number year by year until and including the year 1860, were over various routes within the open region mentioned, none of which was used enough to make it a beaten, well-defined cattle-highway, such as parts of several of the Texas-northern trails became in the trail period after the Civil War. The Texan movements of cattle to Old Mexico before and during the war comparatively were unimportant, and after crossing the Rio Grande followed the established routes of travel until the stock was sold; and the Texas herds destined for consumption by the Confederate armies were driven to the Mississippi River on the roads of the country.

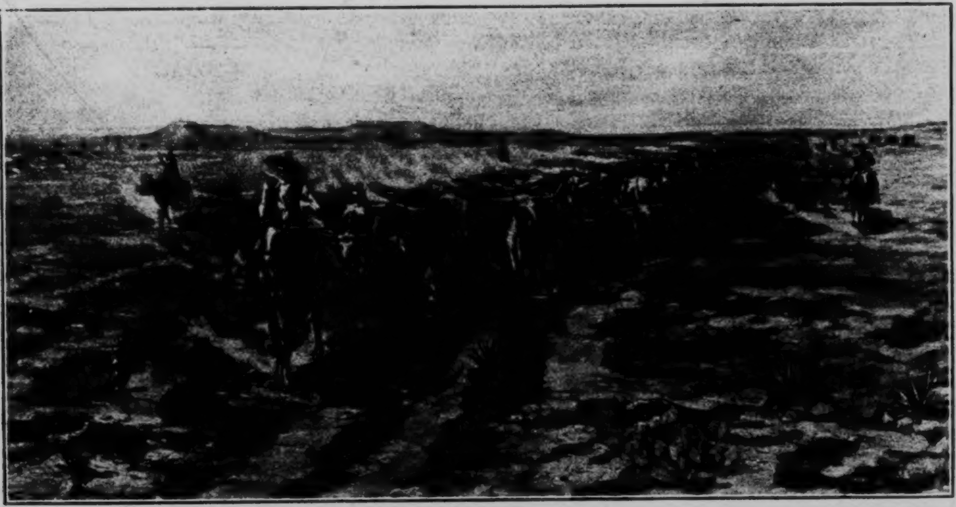
When the drives to the North from Texas were resumed after the Civil War most of the herds followed the old routes of the preceding decade in the direction of southwestern Missouri. The more favored of these, which led north by east through the eastern part of the Indian Territory to Baxter Springs in the southeastern corner of Kansas, became known at that time as the "Baxter Springs Trail," which, within a year or two, had been made for much of the way a well-beaten path. After a cattle market and shipping facilities had been established at Abilene, Kansas, in 1867, a route through the Indian Territory, farther to the west, came into prominence. This was known as the "Shawnee Trail," which, after crossing the Arkansas River a few miles above Fort Gibson, Indian Territory, bent northwestward along that stream and through the Osage Indians' reservation to the Kansas line and thence on northward to Abilene, with divergences in eastward directions. A southern divergence from the Shawnee Trail, that began to be used in 1867, followed the Arkansas River on its westward side up to the mouth of the Little Arkansas at the site of the present city of Wichita, Kansas, where it crossed and led on in a winding way to Abilene. In the spring of 1868 the promoters of Abilene sent out a surveying party that shortened the part of this route between their town and the Arkansas River crossing at Wichita, by running a line nearly due south and as straight all the way as was practicable for a cattle-trail; the course being plainly marked by small mounds of earth. This route from its southern divergence from the Shawnee Trail then was called, by those who thoguht that everything should have a name, the "Abilene Trail," but the southern end of it continued to be used as a way to southern Kansas shipping-points long after this name had been dropped and after Abilene had ceased to figure in the calculations of Texas trailmen. However, its straightened northern end had the distinction of being the only cattle trail, or part of one, ever located and marked by an "engineer corps."

After the Civil War railroad construction was pushed with great energy in eastern and southern Kansas, and as these iron trails penetrated farther and farther into the southern and southwestern parts of the State, and so afforded new shipping-points as cattle-raising was extended westward in Texas, and as the practice of moving herds of southern cattle by trail to be put on northern ranges developed, various other, but more westerly, trails from Texas were broken, though to only a few of them distinctive names were given. One of these was the "Chisholm Trail" through the western part of the present Oklahoma into Kansas. It took its name from Jesse Chisholm, who was the first man to take a drove of cattle over its route. Its course was more direct than that of most of the Texas-Kansas trails, being between 250 and 300 miles in length from its Red River crossing to Kansas through a country having abundant grass and plenty of water, but no very large streams to be crossed. The journey from the Red River to the Kansas border on this route usually was made in from twenty to thirty days, according to the character of the stock and to the methods of different herd managers. Many of the Texas cattle that were shipped from Great Bend City and from Dodge City went north from Texas over the Chisholm Trail, which, during the '70's, was used by so many trail-herds and trampled so nearly bare of vegetation that some stretches of it for miles presented the appearance of a highway for all kinds of travel.

Jesse Chisholm was an enterprising and interesting half-breed Indian, who had long been a stockman in the Indian Territory. As early as 1840 he had droves of horses and cattle in the west-central part of that Territory, which at that time was made a dangerous region by the warlike Kiowa and Comanche Indians. The larger part of his business in the earlier years of his career was in horses, many of which he bought from these and other Indians, who could afford to sell them cheap, as they got them by stealing in Texas, New Mexico, and everywhere else in which they could lay hands upon them.

Chisholm was also a trader, and therefore his transactions with the Indians usually were on a trade basis.

West of the Chisholm Trail was the "Pan Handle Trail" through the Texas Pan Handle country, over which many thousands of cattle traveled on their way to shipping-points in western Kansas and in Colorado, and other thousands to northern ranges. This trail was much used by northward-bound range-cattle until a railroad was built northwest from Fort Worth through the Pan Handle country into Colorado in the late '80's.



A Herd on the Trail in Texas.
(From a painting owned by Mr. George R. Barse of Kansas City.)

Still farther west was another noted cattle-way, the "Pecos Trail." Its course was up the Pecos River valley in New Mexico and on north into Colorado; much of the cattle driven over it being bound for ranges in Wyoming and Montana.

These were the principal trails from the southland into the North, but there was always a good deal of "branching out" and "cutting across" this way and that. For years most of the country traversed by the trail-herds was open—a fenceless empire, and considerations of water and grass were all that restrained the trailmen from going with their droves in any direction they pleased. It was in some of this branching out and cutting across that parts of the old Santa Fé Trail had dust raised from them by trooping cattle from the Southwest.

None of the various routes into the northern range country appears ever to have become commonly known by any more definite name than that of the Territory into which it led; and so, for example, any of the ways into Wyoming or Montana might be referred to simply as the "Wyoming Trail" or the "Montana Trail." Sometimes, however, the name of the river through the valley of which a trail wound its way would be used to indicate its course. In the earlier years of the trail movement of cattle to the northern ranges there were several routes through central Kansas, and in Colorado within sight of the mountains, to southeastern Wyoming, where others diverged to the west, northwest, and north. Montana was reached through the Powder River country and also through that of the Big Horn River, and then they went on into the valley of the Yellowstone and to the upper reaches of the Missouri. Think of the length of this Long Trail! It took form in far-off Texas and faded out on the northern border of our great pasture-land in the West. Some of the southern range-stock taken into western Dakota went by way of Wyoming, while other herds crossed western Nebraska and marched on northward, skirting the eastward base of the Black Hills.

All of these northern routes practically were extensions of the great trails from the South, and their history possesses no important features separate from that of the parent highways, nor was life upon them notably different in any respect. Indeed, it may be said that herd management and daily routine essentially were the same on every cattle-trail in the entire range country, and that at no time were they greatly changed from the methods established by the Texans before the Civil War.

It was not customary, because it was considered unsafe, to put more than about 3,000 head of cattle in one trail-herd; and, aside from what were considered dangers, a greater number was cumbersome and hard to handle. But in 1872 John S. Chisum, of western Texas, moved 6,000 head in one herd from the Concho River to Bosque Grande. This is said to have been the largest herd of range cattle ever driven any considerable distance.

Range cattle on the trail usually separated into strings, moved in single file, for most part of the way. Here and there this order became broken, and the vegetation was tramped out until the trail looked like a beaten roadway, but in the greater part it consisted of parallel paths about a yard apart from middle to middle, with more or less grass growing on the untramped narrow strip between them. It was seldom that a herd was unaccompanied by buzzards patiently hovering overhead, waiting for some mishap to leave behind a carcase for their benefit.

Some of the trail-drovers were merely middlemen, who bought stock from ranchmen in the South, and either sold it in northern markets the same season or put it on Northern ranges for further pasturing; and in years of favorable markets they would make more than one drive of beef cattle. But there were many owners of large ranches, who trailed herds entirely of their own raising, while other ranchmen made up their drives partly from their own herds and partly by purchase from their neighbors; and sometimes two or more ranchmen would join in making up and taking a herd to the Northern markets, each retaining his interest in his part of the drove and bearing his share of the trail expense.

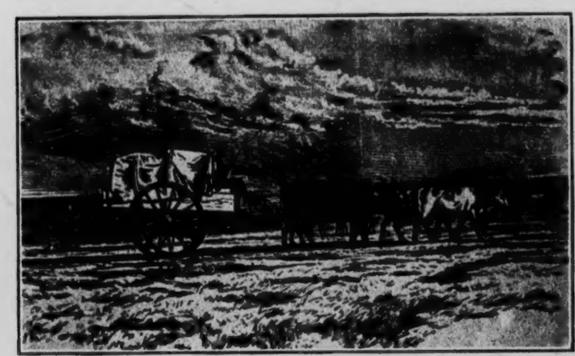
Beside the manager, cook, and "horse-wrangler" there usually would be with a trail-herd one cowboy to about 175 head of cattle, but as most of their work required the cowboys to go in pairs, their total number nearly always was an even one; as, for instance, with a herd of about 3,000 head there would be sixteen or eighteen cowboys.

To become an efficient subordinate trailman was the ambition of most of the Southern cowboys, for, beside the better pay for trail work, the trip was an agreeable break in the monotony of range life, and gave some opportunities to "see the world," to say nothing of the more or less variegated "time" to be had at the farther end of the trail, if personal leanings were in the direction of an occasional departure from conventional rules of life. For several years after the Civil War a considerable number of Mexican cowboys were employed by trail-drovers, but as most of them were thought to be unduly rough with the cattle, and did not mix well with the American element, the majority of them had been displaced before 1875.

A herd of 3,000 cattle on the trail through an open and favorable country would, unless compelled to move more compactly—which was not often done—form a slender, sinuous line of great length relative to its breadth. If it could have been seen from above, as from a balloon, it would have presented oftentimes the appearance of an enormous serpent slowly moving in graceful curves over the country. During the first few days there usually was a little trouble in getting the herd to move as it should and to become accustomed to the novelty of the situation. But during that time it seemed to go through a process of self-organization, and, as in communities of men, leaders developed, and the rest took their places in the column apparently in accordance with their own estimates of their proper stations and importance in the proceedings; the disreputables, the inefficient, the incapacitated and so forth, bringing up the rear.

The leaders thus developed soon after the start usually kept at the head until the finish, unless disabled by some misfortune, such as footsoreness, to which all cattle fresh from the comparatively idle life of the range were liable when put on the trail, where marches, which, in their opinions, were unnecessarily long, had to be made day after day for a month or so.

In most instances when a water-course had to be crossed, even though it had the rank of a plains river, if it were at medium stage, the water fairly clear and flowing gently, the leaders would prove their fitness for their places by wading in without hesitation and also by swimming a little if necessary; and, with dignity becoming their positions, calmly then would go ahead on the trail, as if nothing out of the ordinary had happened. The rest would follow without protest, and if anybody had trouble at such a crossing it was the cook, who had to see to it that the commissary supplies in the mess wagon were not flooded. But even in cases where these had to be unloaded and carried over aloft in the hands of the cowboys, the cook thought he found some solace for his extra trouble in outbursts of torrid and piebald profanity, in the phrasing of which but a sorry few of his tribe were novices. So, the intervention of an ordinary stream, or of any at a moderate, quiet stage, caused little disturbance of the usual routine of the trail outfit.



An Old-time Mess, or "Chuck" Wagon.

But there was trouble frequently at the larger streams when they were at a high stage and muddy and running with a swift current. Under such circumstances the leaders would appear instinctively to be afraid to attempt the crossing, and much vigorous urging was required to make them try it. If they were once pushed in to the swimming depth, usually they would then go ahead to the other side and the rest would follow. Sometimes this was helped by a cowboy on his horse going in front of the leaders and showing them that there was no great danger, and encouraging them not to be outdone in a swim by a member of the cavvieyard. While the cowboy upon whom this duty fell regarded it merely as an incident in his business to be disposed of without delay, it was possible that it might prove to be a serious proposition for him. There were cases in which the leaders when in midstream became alarmed and began to swim in a circle—"milling" in the water—and, being followed by others, there soon would be a confused mass of panic-stricken beasts exhausting their strength to no purpose. The cowboy then would have to force his horse into the midst of this whirl and break the mill and compel some of the cattle to lead off in striking out for shore. In doing this he was liable to be unhorsed and to have to swim for his life, unless he succeeded in being towed to safety by holding on to the tail of one of the more rational of the swimming steers.

When the leaders of a herd halted at the brink of a river at high stage, and refused to be either driven or lured to make the swim, their balking soon would be followed by a massing of the herd as the cattle behind kept coming up. This would cause confusion and distraction among the animals, for they would seem to realize that there was trouble in the outfit, although most of them might not know what had caused it. Instances were known in such cases as this when several days elapsed before the herd could be coaxed or driven to make the passage. In times of trouble in getting a herd across a swollen, rapidly-flowing river it was not uncommon for some of the weaker cattle to be swept away down the stream and drowned before their waning strength could get them where they could touch bottom.

In crossing rivers at high stage the mess wagon did its part toward making the proceedings interesting. Things subject to damage by water were, as we have mentioned above, unloaded and taken over by the men on their swimming horses. If the outfit carried no line especially for the purpose, picket-ropes were tied together to make a cable long enough to reach from bank to bank, and by it the wagon was pulled across with horses on the opposite side; the voyage usually carrying the wagon a few rods down stream.

A trail-herd of cattle moved slowly. The distance traveled daily usually ranged between ten and fifteen miles, the character of the country and the opportunities for watering and grazing often shortening or lengthening a day's drive. Moreover, a herd intended to be put on Northern ranges could be pushed along faster than one of beef cattle bound for the market. Frequently—and nearly always in the earlier part of the trail period—a herd would consist of both range stock and beeves, and therefore its rate of progress would be that of the slower-going animals.

Some of the old-time drovers said that for three or four days from the start they traveled at the rate of twenty-five or thirty miles a day, and then dropped to ten, twelve, or fifteen miles. This was done to get the cattle away quickly from the section of country with which they were familiar; to break them in to being driven in a string on the trail; and to make sure that they would be tired enough by nightfall gladly to lie down and remain quiet through the night, instead of making trouble by attempts to break away, as otherwise they would strongly be disposed to do before they became accustomed to the routine of their new situation.

It was also said by some old-time trailmen that as a common thing the cattle they drove were easier to control and manage when on the trail than when on their home ranges where surroundings were familiar to them and where they appeared to feel abler to take care of themselves and to behave more as they pleased. It was thought that the changed conditions of their daily lives, and their continued progress through country and scenes that were strange to them gave them a feeling of greater dependence upon the wisdom and judgment of their human masters. However this may have been, the fact remains that the cattle showed remarkable adaptability in becoming broken to the rules and reguations of the trail and soon learned to march along day after day like a column of soldiers.

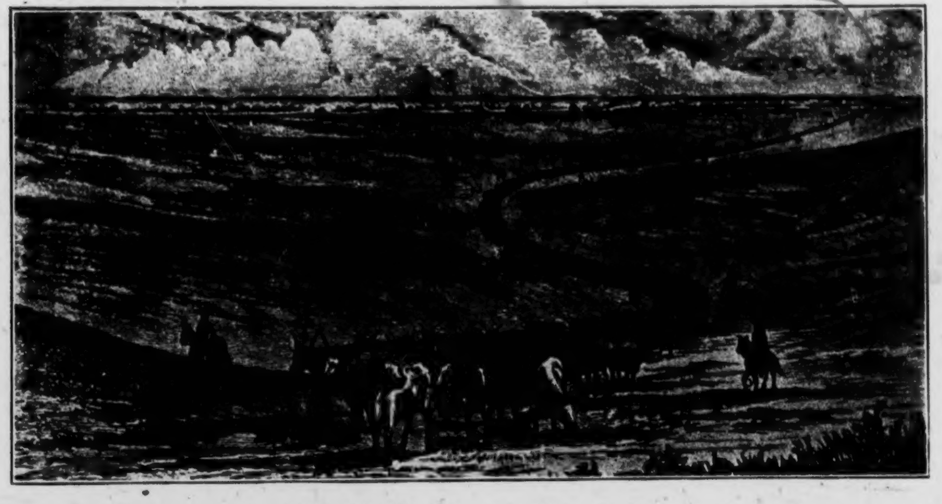
The following interesting account of the methods of trailmen and of the general management of trail-herds was contributed to this work by Mr. Charles Goodnight, of Goodnight, Texas; a veteran range-cattleman of that State, who drove many thousands of cattle over historic trails leading to the north from Texas and New Mexico:

"I shall confine myself principally to the methods employed when the great cattle-trails from Texas to the North first were opened; when it was necessary in many instances to open a new trail, which, as years passed, became a highway for the movement of thousands of cattle to the market. I shall speak of a time after the Civil War when the Indians were hostile, when routes were little known, and when a man had to have his wits about him if he succeeded in reaching the end of his journey alive. The circumstances called for men as managers of the trail-herds who possessed the qualities of a successful military commander, and who had the ability promptly and efficiently to act in sudden emergencies. Such men soon developed on the trail, and this class of men became the successful cattle managers of the Southwest; and many of them still are among the living.

"The ordinary trail-herd in the years following the Civil War numbered about 3,000 head of cattle. It was customary for the manager to arrange for the concentration of the herd by the different sellers at some given point, where the cattle were driven through a chute and branded with a trail-brand, and then the herd immediately was started on the trail. The outfit consisted of sixteen or eighteen men, each of whom had two good horses; a mess-wagon, drawn by four mules, which were driven by the cook; and a horse-wrangler, who had charge of the horse-herd. We aimed to have as many experienced men as possible with our outfit. After a few years there had been developed on the trail a class of men that could be depended upon anywhere. Experienced trailmen were paid as much as $5.00 a day; and good riding-horses cost $250. These horses were fed grain on the trail, but the ordinary horses fed entirely upon the grass. The mess-wagon was provided with flour and coffee, and sometimes with bacon, although our principal meat supplies were drawn from the herd itself. We broke camp at daylight and were in the saddle until dark. It was a rough, hard, adventurous life, but was not without its sunny side; and when everything moved smoothly the trip was an agreeable diversion from the monotony of the range.

"But things did not always move smoothly. There was the dreaded stampede! Nothing the cattlemen so feared as the stampede. It was much more liable to occur with the Texas 'long horns' than with the higher-bred range-cattle of to-day. The stampede was especially guarded against during the first ten days or so of the drive. Everybody was on the alert, and if we succeeded in holding the herd together for that length of time we seldom experienced trouble from stampedes farther along on the trail. The men slept on the ground with the lariat wrapped around the wrist and with the horse so close that he could be mounted at a bound. Sometimes the demands were so urgent that a man's boots would not be taken off his feet for an entire week. The nerves of the men usually became wrought up to such a tension that it was a standing rule that no man was to be touched by another when he was asleep until after he had been spoken to. The man who suddenly aroused a sleeper was liable to be shot, as all were thoroughly armed and understood the instant use of the revolver or the rifle.

"The darker and more stormy the night the greater was the danger of a stampede. The stampede would come instantly. The herd of 2,500 or 3,000 cattle might be lying on the bed-ground in the most perfect peace and security, with everything as quiet as a graveyard, when, in a second and without the slightest warning to the eye or ear of man, every animal would be on its feet, and the earth would tremble as the herd swept off through the darkness. The experience was one of the most thrilling a man ever could know. Every person in camp would be up and away. No one, not even the most experienced trailman, could, at the beginning of the stampede, guess the direction of the flight. The course appeared to be at random, for the cattle would plunge headlong against any obstacle and down any precipice that stood in their way.



A Texas Trail Herd Bound for Kansas in 1867.

"The task of the men was to gain control of the herd and gradually turn the cattle until they were moving in a circle. Then, although they might break each other's horns off and crush one another badly, the great danger was past. A well-trained night-horse needed but little guidance, and knew that if the herd came his way, all that he had to do was to lead. The speed of the herd was terrific, but the position at the head of the stampede was just what the trailman desired, for there he was in a position to start the herd to turning. Advantage was taken of level ground, and when the leaders were started toward moving in a circle the victory practically had been won.

"In the excitement of a stampede a man was not himself, and his horse was not the horse of yesterday. Man and horse were one, and the combination accomplished feats that would be utterly impossible under ordinary circumstances. Trained men generally would be found near the 'point' at both sides of the herd. When the man on one side saw the herd bending his way he would fall back, and if the work were well done on the other side of the herd the stampede then gradually came to an end; the strain was removed, the cowboys were the happiest men on earth, and their shouts and laughter could be heard for miles over the prairie.

"The heat developed by a large drove of cattle during a stampede was surprising. The faces of men riding on the leeward side of the herd would be almost blistered, as if they had been struck by a blast from a furnace; and the odor given off by the clashing horns and hoofs was nearly overpowering. In the coldest weather it was uncomfortably warm on the leeward side of a moving herd of cattle; and to guard against, as much as possible, loss in weight and of muscular strength from the effects of this heat the experienced trail-manager always aimed to keep his cattle well distributed while they were in motion on the trail. These effects were similar to those from which many a countryman suffers when he walks the crowded streets of a city on a hot day: they soon tire him out.

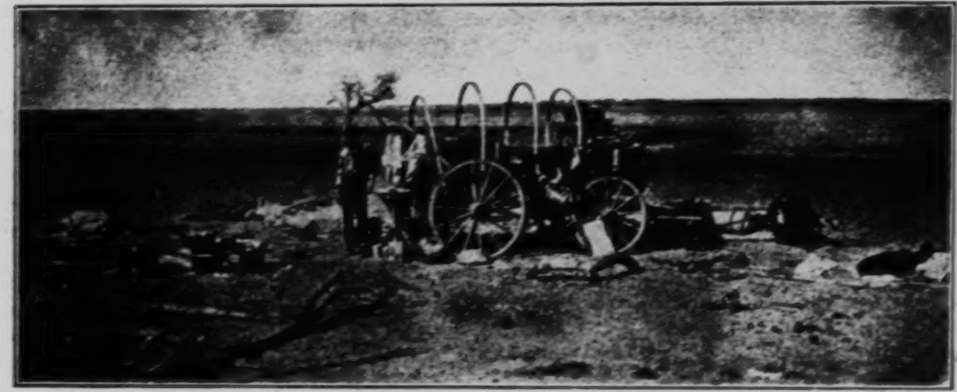
"The handling of the herd was most important, and to accomplish this in the least time and at the least expense of horse flesh a system of signals early came into use upon the trail. At times when the cattle were grazing, often it would be several miles around the scattered herd, and therefore there would have been much loss of time in riding entirely around it to give orders which the manager desired to communicate at different hours of the day. Hence the manager taught his men at the outset the signals that would be used during the trip. These signals mostly were derived from the plains Indians, and were well adapted to the purpose. They were all made from horseback, and movements of the hat were the principal features. The hat was held in the left hand and the reins of the bridle in the right. First was the signal to break camp and to move upon the trail. This was simply a motion with the hat in the direction of the route to be followed and was repeated by the leaders at the front and passed along to the rear. The herd then was set in motion, although not a word had been spoken, and soon the line was stretched out for more than a mile. In the Indian country the cattle were grazed around the mess-wagon, and the start never was made until the wagon had been loaded and was ready to move; it being part of the duties of the head men to assist in loading it. About 11 o'clock in the forenoon the signal to graze the cattle was passed along the line. By a signal with the hat the leader indicated on which side of the trail he desired the cattle to graze. If the grazing-ground were on the right-hand side, the men who had been riding on that side slowly rode through the herd to the left-hand side. The cattle then were turned upon the grazing ground, and the men who had changed their positions rode back to the right of the herd and waited for the signal to move forward. As soon as the cattle began to lie down this was accepted by the manager as evidence that they had grazed long enough, and therefore he gave the signal to resume the trail. The two front men, known as the 'pointers' guided the herd in the desired direction; and if it were snowing or storming the manager rode ahead to indicate the course.

"When a new trail was to be laid out the manager would be up at daybreak or earlier, and after roping a good horse in the 'cavvie-yard' for his use, would start out to prospect the country for fifteen or twenty miles ahead, and on each sufficiently to locate the desirable watering-places. Then he would ride back to an eminence from which he could be seen from the camp, and, riding rapidly in a circle, he would turn his horse broadside to the herd, in which position the horse easily could be seen. Keeping the horse standing in one position meant 'move ahead,' but if the course were to be changed the manager would ride off in a gallop until he reached the line of the new course, where he would stop and signal to 'come ahead' in his direction. Such changes of route, especially in the early days, accounted for the many sudden bends in the old cattle-trails.

"The cattle were watered only once in a day, so that the men who rode one day in the heat and dust were where they could breathe pure air the next.

"The science of the trail was in grazing and watering the cattle, but the watering was the more important of the two. I have met but few men who knew how to water cattle properly. We usually traveled twelve or fifteen miles in a day, but the last half of the day's travel was accomplished much easier than the first half, for the cattle would be growing thirsty and becoming eager to get to water.

"After the camp had been established the men were distributed at wide distances around the herd, so as to give plenty of grazing-ground, usually in the evening. The men ate a cold lunch at the noon stop while the cattle were grazing, but a warm meal was served in the evening; this being the principal meal of the day. It usually consisted of beef, hot biscuits, and coffee, the men eating in squads, as a certain number of them constantly were out on guard. Every movement was with almost military precision, and men assigned to specified duties or positions continued in them until the close of the journey. For instance, a man who went on the first watch at night continued on that watch during the trip. An exception was made when moving on the trail on account of the heat, dust, and inconvenience of riding on the leeward side of the herd; the men changing sides daily, At sundown the round-up signal, which consisted of waving the hat in a circle around the head, was given, and the herd slowly was pressed to the bed-ground. This was done without noise or excitement of any kind, and as the darkness fell upon the scene the herd was gathered within an area of from one-quarter to one-half of a mile in diameter. The foreman would make a circuit of the herd, the first guard for the night would be placed, the signal to come to camp given, and then all of the other men of the outfit would gather at the camp-fire. As the mess-wagon had reached the spot earlier in the evening, supper was served while the cattle were grazing before being rounded up for the night. We generally made use of three sets of



A Later-time Trail Cook and His Outfit.
(From "The Cattle Industry of Texas.")

guards in a night, but in the latter part of the trip the number of men on guard at one time was diminished, and four smaller sets of guards were placed. Sometimes it was necessary to station guards to drive off the buffalos, and to build fires to keep them from stampeding the trail-cattle. More than once in my experience the buffalos threatened to stampede my herds by rushing through underbrush at night and therefore making a great noise. The cost of driving a herd of 2,500 or 3,000 head of cattle from 600 to 800 miles over the trail generally was estimated at $1.00 a head. Men who employed cheap Mexican labor and stole the beef they ate on the trail got through at less expense. At the end of the trip the cattle were delivered to a purchaser, or turned out upon the range to be wintered for sale in the following season."

The drive of about 100 miles across the Staked Plain from the headwaters of the South Concho River to the Pecos River was, in a more than ordinarily dry season, an undertaking much dreaded by old-time Texas trailmen. In recent years the windmill has demonstrated that there is a fair supply of water not far beneath the surface of a large part of the Staked Plain district, but in the period of which we are speaking here the Plain was unoccupied and also supposed to be uninhabitable; and then, as now, surface water disappeared in abnormally dry seasons. In some summers in the old times when cattle were driven across the Plain, not a single water-hole was to be found along the entire route, and so the stock unavoidably suffered pitifully from thirst, and the losses to their owners were serious even in the more successful of the dry-season trips; Mr. Goodnight having lost 300 head the first time he made the drive under such conditions. The plan finally adopted to expedite the journey and lessen the duration of its hardships was to arrive at the Concho at about 11 o'clock in the forenoon if possible, so as to give the cattle ample time to water and graze there before entering upon the long and distressing march. Then the start was made and the herd was pushed forward steadily until midnight, the mess-wagon having been sent ahead, if no attacks by Indians were threatened, to be prepared to serve hot coffee to the men while the cattle and horses grazed and rested. After a short midnight stop, the herd again was put on the trail and kept going until daylight, when breakfast was served to the men while the stock grazed and rested. But the halt would be brief, and by noon the head of the column of famishing beasts would be moving so fast that it was necessary to hold it back until the weaker animals of the herd, that were lagging in the rear and on the verge of dropping out from sheer exhaustion, could catch up. Again the cattle were pressed forward, and in the evening strong coffee was served to the men as they rode past the mess-wagon. Each passing minute now was becoming more and more precious, and the salvation of the entire herd depended upon its steadily onward movement to the waters of the Pecos.

The trip was a most trying one upon the men as well as upon the stock, and by the second midnight, having been continuously in the saddle from the start, they were nearing the state of exhaustion in which nothing but sleep could restore them to their normal condition. But, sustained by their iron will, and heavy black coffee, they kept on with their suffering cattle. Usually the head of the herd would be within ten or twelve miles of the Pecos River before daylight in the second morning, and some of the less fatigued men then were placed at the head while the more wearied ones were allowed to sleep until the light of dawn appeared over the eastern horizon. It was very important to note the direction of the wind, for in that stage of the journey the cattle would be approaching a condition of delirium from thirst, and therefore a whiff of air from the river might start the herd in an uncontrollable rush to a steep bank of the stream, over which the frenzied creatures might plunge, many of them to be killed by the fall and by the crush of those that came after them, while others wolud be crippled beyond repair. Great losses sometimes occurred in consequence of such a wild, headlong rush for water.

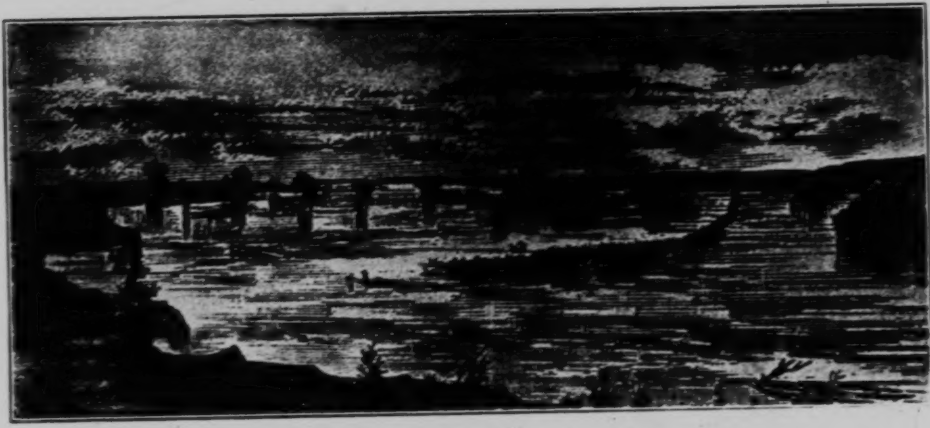
In this stage of the drive the cattle would reach about the limit of their endurance, and their subdued lowings, mutterings, and moanings indicated plainly that the critical period had arrived. Every man was in his allotted place, and the herd was kept moving onward. If the wind were toward the river, a headlong, crazy rush usually would be averted, but even in such cases the leaders, which were, of course, those that had the greater endurance, as they drew nearer to the end of the journey would recognize the proximity of water and start on a run for it, and which all or nearly all of the others, suddenly stimulated to a supreme effort in their extremity, would join. Sometimes the main body of a herd that had reached the stream where its banks were low, would be under such headway that many of the animals were forced clear across the river and up the opposite bank without being able to put their parched muzzles to the water; some of the cowboys also being carried over in the jam. An indescribable excitement had taken possession of men and beasts, but once upon the other side of the river the cattle would double back almost instantly and plunge into the water again, where the poor, famished creatures would drink to their fill—and some would overdrink and lie down and die.

It has been said that in affairs of this kind there was some danger from the choking, and therefore the damming up, of the stream by the mass of cattle when a large herd was drinking, and that when this occurred some of the animals were sure to be washed away and drowned when the pressure was relieved. But the greater danger in these drives was from the frenzied rush for water when the herd had winded it from a great distance after about two days of unquenched thirst, and, as we have mentioned, would pitch over precipitous banks of the river into crushed and broken heaps below.

The presence in the country of hostile Indians sometimes added to the perplexities of the situation, and this contingency, as well as the many others, had to be considered and provided for by the manager of the herd to be driven across the Plain, for upon his judgment and executive ability the success of the trying undertaking, in a great measure, depended.

In cattle, as in most other animals, the sense of smell is developed to a wonderful degree of refinement, and their faculty for detecting the odor of water at great distances when the wind is in their favor astonished every plains stockman when it first came to his notice. It was not uncommon for cattle on the trail in dry seasons and in a country strange to them, to discover by smell that there was water ahead fifteen or twenty miles away; and it has been asserted that in Texas they have been known to detect its odor at twenty-five, and even at thirty, miles, and to go directly over unknown country to the stream or pool whence the odor came, guided only by their sense of smell. At first they would raise their heads and sniff the air, and then start forward on a brisker walk which later would become a trot that eventually was turned into a dead run, if the animals were suffering much from thirst.

About twenty years ago, when it still was a common belief among many western stockmen that cattle-trails would continue indefinitely to afford the only generally practicable means of moving large numbers of cattle over the immense range country in the West, it was seriously proposed by a big and influential body of men to have the National Government establish a great north-and-south avenue as a trunk basis for future trail operations. The first convention of stockmen that was national in character met at St. Louis in November, 1884, and was attended by so many delegates and other interested people from nearly every part of the United States that even to this day it is referred to by those having knowledge of it and of its successors as "the great convention." Among the measures that came before that body and were acted upon was one to memorialize Congress to establish a "national stock trail" beginning at some point on the Red River and extending thence in a northern or northwestern direction to the northern line of the United States. It was proposed that a strip of country to form a great lane through the range-cattle region from Texas to some point on the northern boundary of Montana east of the Rocky Mountains, should be set aside exclusively to be used forever as a National Live Stock Highway for the movements to and fro of herds and flocks. National public land was to be utilized for it as far as possible, and intervening tracts of other ownership were to be acquired and paid for by the general Government. Opinions differed as to what should be the width of this contemplated great trail belt, the distances proposed having ranged from five to fifty miles. But it was commonly held that the broad lane should be fenced substantially, provided with bridges over the large streams, and have shipping-points at such places as the business of the trail might require. Both sides of the proposition were discussed vigorously in the convention, as well as on the outside, the Southern and Southwestern men giving it an enthusiastic and unanimous support; and the debate ended in a good majority of the delegates voting to authorize and direct that such a memorial be presented to Congress; and also for another, addressed to the Governors and Legislatures of the States of Kansas, Nebraska, and Colorado, asking their coöperation and support in behalf of the proposed great trail of magnificent distances. The magnitude of the thing was in keeping with the spirit of the range country, but the project was doomed to an early death from inanition at Washington.



An Early Texas Trail Herd Swimming a River.

In an earlier period such a proposition might have become a reality, but in 1884 the end of the great movements of cattle over the old trails was coming within sight, and before the close of that decade it had come to pass. The railroads finally had demonstrated the economic advantages of moving range-cattle from one part of the country to another by rail instead of by hoof. Yet it had taken them a long time to do so. The Texans had continued to trail their cattle for years after their State had direct rail connection with the North. The Missouri, Kansas & Texas Railroad, that was finished from Junction City, Kansas, directly south to the Indian Territory line, in June, 1870, was completed through to Dennison, Texas, by the close of 1872; having been opened for business on January 1, 1873. By 1875 several other railroads had been put in operation from eastern Texas northward. But rates were high throughout that period—so high, even for beef cattle, that hosts of these had continued to be trailed to Kansas, there to be railroaded to market; and to common range-stock bound for Northern ranges the rates practically were prohibitive. Furthermore, to reach the Northern ranges by these roads and their connections required a round-about haul.

The Fort Worth & Denver City Railroad that extends in a very direct line northwest from Fort Worth to a connection into Colorado, and that was opened for business in January, 1888, was a most influential factor in precipitating the collapse of trailing cattle from the South to the ranges of the North. A railway extending 125 miles north from Cheyenne, Wyoming, was completed in the autumn of 1887, and therefore a herd of cattle from Central Texas could be transferred in a few days by a direct route, formed by the Fort Worth & Denver City road and its connections, far into the range country of Wyoming; leaving comparatively short drives to reach the ranges of northwestern Nebraska, of western Dakota—now about to become two States—and of Montana.

Other rail routes into these Territories also were opened about that time and became actively engaged in the range-stock traffic, rates were so modified as to make it more economical to ship by rail than to drive, and so by the close of that decade there was no business left for the old cattle-highways.

Beside the railroads, another innovation had been at work to assist in the undoing of the trail system. Soon after the general introduction of wire fences on the range these became serious obstacles to the movements of trail-herds, and as they were further extended they were more and more troublesome to the trailmen.

Here and there in the long and broad domain that once was ribboned by these hoof-beaten ways, weathered traces of them still may be seen; a river ford may be known by the name of the trail that crossed there; a ranchman may point out where a noted trail came down from the summit of the divide off yonder and turned here by the corral and passed on to the river. But this is about all that is left of them.

The present-time traveler in the cattle country in the West still may see occasionally a drove of cattle winding its way along what appears to be a trail, just as he may see, once in a while, the white-topped wagon of a "mover" slowly making its weary way to "some other place"; and for the moment he may think of the dead coming to life again. But both are feeble surviving remnants of old-time western institutions. The drove may be of beef cattle going to the nearest railroad—perhaps as far as a hundred miles distant, there to be rolled away to their fate; or it may be a bunch of stock-cattle that has come into the country by rail and is being driven to a ranch out there beyond the horizon; or it may be a purchase by one ranchman from another that is going to the buyer's range. It is nothing more than weakly suggestive of the old Long Trail. As the mover's wagon is to the caravans of the freighters and of the emigrants of bygone days in the West, so is the driven bunch of cattle that our traveler may now see to the great herds that moved and followed each other on the highway trails of other years. These have passed away, and such scenes, tragedies, adventures, and incidents as were associated with them never again will be known on this earth.

George T. Reynolds.

The lives of some men are immensely inspiring. The simple presentation, without any attempt at ornament, fixes the attention, arouses the interest, and instills a lesson which is never forgotten. The Bible is a striking illustration of the power of biography, and it is probable that the Bible will stand as long as the history of the human race survives as the greatest collection of lives in the world.

The lesson of biography is to show what man has accomplished, and therefore what those who follow may accomplish. The lives of men of action are a constant encouragement whose value it is impossible to estimate. As has been aptly said: "The career of a useful man remains an enduring monument of human energy." It is a legacy to the world, more to be prized than mere wealth, the possessor of which is often quickly forgotten. Life in the final analysis is simply a great school of experience, in which the highest object is the development of noble character.

These few words of introduction lead to the remark that among the live-stock men of America are to be found many of the most inspiring characters history has produced. The pioneer livestock men were, in a number of instances, great men—men of unshaken resolution, undaunted courage, great strength of character, and power of foresight. They were men who commanded because of natural fitness for the position, and their judgment on important questions connected with the industry was almost unerring. The early Texas cowman is recognized the world over as a master of his calling. The man who gained acknowledged standing on the open range and on the trail in the decade following the Civil War, and who has held his position through all the changes the industry has witnessed, belongs to a type justly held in highest esteem. It is a type now rapidly passing from the stage. In a few years the last of the pioneer cowmen will have departed, and a new generation with new ideas, new methods, will be at the helm.

On the 14th of February, 1844, in Montgomery County, Alabama, George T. Reynolds first saw the light of day. Could his parents have been given a correct horoscope of the life of their son, they would have rejected it as wholly impossible. It would have seemed stranger than a tale from the Arabian Nights; it would have revealed a path beset by dangers of the most startling nature—the trials of the rough frontier—the tragedies of the Civil War—innumerable conflicts with blood-thirsty Indians—vicissitudes and perils of the cattle-trail—startling changes of fortune, and finally a position of ease and affluence which the brightest imagination of the pioneer, half a century ago, could hardly have pictured. The life of Mr. Reynolds presents all the phases necessary for a drama of surpassing human interest, and the mind is led to the conclusion that surely in this instance a divine Providence exercised a special prerogative in protecting the life of a favorite child. Mr. Reynolds himself at the age of three-score, does not hesitate to ascribe his preservation in times of extreme danger, to the prayers of his mother, a woman of distinguishing traits of character, strong mental qualities, and of profound religious convictions. The world is a sphinx, and human life is often a riddle, but in this instance there is evidence of a power unseen, whose preserving influence has enabled Mr. Reynolds to live and enjoy the fruits of many years of toil and self-denial.

The father of Mr. Reynolds, B. W. Reynolds, was a genuine frontiersman. He was of Scotch descent, a native of Georgia, and in 1836 engaged as a soldier in the Seminole war. He was united in marriage to Miss Anna M. Campbell, and attracted westward by opportunity of providing for his growing family, he emigrated to Texas in 1847. George T. was then three years of age, and Texas has been his home during a larger part of the time that has elapsed. The family settled in Shelby County, and there remained for thirteen years. In 1860, just before the outbreak of the Civil War, another move was decided upon, as East Texas had become almost as thickly inhabited as the older States towards the East. After stopping at Weatherford, the family located for a time in Palo Pinto County, a few months later settling in a beautiful spot on the Clear Fork of the Brazos River in the northern part of Stevens County. Weatherford was then the advance post of civilization in West Texas. Beyond Weatherford, as far west as El Paso, 600 miles of rolling prairie was in almost undisturbed possession of the Indian and the buffalo. Any man prophesying its settlement within fifty years would have been classed as a dreamer. It was an immense open range, destined by nature as the years passed to become one of the greatest cattle-breeding regions the world ever knew; not, however, until after many great obstacles had been overcome and at the cost of immense hardships and suffering.

"The history of the trials and suffering of the early settlers of West Texas will never be written," said Mr. Reynolds, in referring to experiences of life upon the frontier. "The most of the actors have passed away, and a line of graves extending from Weatherford as far west as the Rio Grande River tells a story more impressive than words. I doubt if any region of similar area in the United States ever witnessed so many tragedies as the result of encounters with the red man. The settlers were subject for many years to excursions of the Comanches, Kiowas, Kickapoos, and other plains tribes, and a man traveled with his gun in his hand, and was obliged to be as wary as the Indian himself if he reached the end of his journey in safety. Every frontiersman was a good horseman, a good shot, and the successful man was also an athlete, and ran great risks in protecting his property from the thieving and murderous foes that infested the country. Picket houses for the protection of families were erected at convenient points, and there the women and children gathered while the men scoured the surrounding country to rid it of the inveterate foe. Under these circumstances, little opportunity was offered for education in the rude log school-houses, and the boys and girls grew up without the advantages of education now offered even in the back districts."

Mr. Reynolds calls attention to the fact that there is scarcely an instance on record in the State of Texas of the marriage of a white man to an Indian squaw. In extensive travels which he has made among Indian tribes of North America he found squaw-men in all the States as far north as Alaska, except in Texas. In Texas the continual hostility that prevailed between the whites and the Indians was an effective bar to the formation of family ties between the two races. Nowhere else did the Indian make such desperate efforts to retain the hunting-grounds of his fathers, and the prolonged contest cost thousands of lives and immense sacrifices in time, exertion, and money. The line of the frontier, extending back into the settlements for a hundred miles or more, was a battle-line, where any day of the year an encounter to the death might be witnessed. Surely here is material for the most sensational yellow-back novel.

Although settlers on the Indian border were exempt from conscription during the Civil War, having quite enough fighting on their hands to hold back the Indians, Mr. Reynolds enlisted in the Confederate service, and at eighteen years of age was enrolled in Company E, 19th Texas Cavalry, Colonel Nat Buford in command. The regiment took part in the raids of Marmaduke in

Missouri and Arkansas. Mr. Reynolds was so severely wounded in 1863 that he received an honorable discharge from the service, and he returned to his home in Texas to enter upon a most exciting career.

At twenty years of age Mr. Reynolds began to think seriously of locating for himself and making a permanent start in the cattle business. He was well equipped to meet the exigencies of the frontier. Soon after arriving in West Texas, as a boy, he had engaged in carrying the mail between Weatherford and Palo Pinto, often riding by night to avoid encounter with Indians. The war experience was most impressive and gave him a confidence in himself and his own resources which assisted greatly in his ultimate success in directing large enterprises. He was versed by actual experience of several years in the saddle, knew nothing of fear, and was a born Indian fighter.

In January, 1864, Mr. Reynolds set out with six companions in search of a new location farther south, where the Indians might not be so troublesome. The party was obliged to subsist entirely on buffalo and deer meat for several days, and finally on the Concho River, in the region of Kickapoo Springs they came upon a band of Indians driving a herd of stolen horses. The Indians leaped upon the backs of fresh horses and escaped, the herd falling into the hands of the white men. Mr. Reynolds came into possession of a Texas saddle, which bore the blood stains of its former owner. The party started to drive the horse herd to Fort Mason and turn the horses over to the military, but at San Saba, fell into the hands of a company of Texas rangers. Here Mr. Reynolds and his friends were thrown into a room as prisoners and horse-thieves, and were in great danger of losing their lives, as the rangers dealt out only one penalty to gentlemen of that persuasion. The good fortune of Mr. Reynolds prevailed; he was recognized by a member of the rangers who had formerly worked for his father, and the release of the whole party was effected. This was a narrow escape, and led to the abandonment of the project of establishing a new home.

The next adventure of interest was a fight with a band of eighteen Indians belonging to the noted Satanta's followers. Satanta was the terror of West Texas settlers, and had swooped upon them at the head of 500 warriors, who distributed themselves over a wide expanse of thinly populated country, killing settlers, burning their houses, and driving off the live stock. The Indians killed nineteen men, women, and children on this raid, and created general distress along the frontier. The Civil War was still in progress, Government troops were withdrawn, and the settlers were obliged to depend upon themselves for defense and retaliation. Under these circumstances, when seven white men, Mr. Reynolds among the number, encountered a party of eighteen Indians in camp, there was instant battle. As the whites dashed upon the foe the horse of Mr. Reynolds gave out and sank to the ground, but the rider shot an Indian from his pony, snatched the reins of the pony, and assisted in putting the Indians to flight, losing a leg of his pantaloons in close encounter, and escaping narrowly with his life from an arrow. Three of the Indians were killed. Satanta afterwards committed suicide in Government prison.

At the close of the Civil War Mr. Reynolds drove a small herd of 100 steers to Mexico, and disposed of them at a fair profit. This was one of his first trail experiences, and led to extensive operations, in which the Reynolds brothers gained a wide reputation as trail-men. Their name became known as far west as California and north to the line of British America. Previous to this, however, there were many trying experiences to pass through. One of these experiences was caused in 1866 by a raid of the Indians, in which they ran off 500 head of cattle belonging to the Reynoldses. This included even the milk cows, and as the horses of the ranch were lost in the same raid, operations were for several months almost brought to a standstill. The Reynolds family had a lease upon the Stone Ranch in Throckmorton County, but bravely decided to remain on the ground, gradually gathering in cattle of their own brand, which had not been driven entirely out of the country. Many encounters took place with the Indians, who twice attacked the home of the elder Reynolds.

One day an incident occurred which led to quite a serious complication, not with Indians, but with regularly-authorized officers of the law.

A boy named Jack Marshall, nicknamed "Jacko," was in the employ of the outfit. Mr. Reynolds had befriended him on occasions when attempts to impose upon him were made by other members of the party, but the kindly spirit was poorly recognized. "Jacko" rode out of camp on the back of one of the best horses owned by Mr. Reynolds. As soon as the theft was known pursuit was inaugurated, and the boy was captured on Morgan's Ranch near Weatherford. He was conveyed into Palo Pinto County, where a council was held, and in a few minutes a rawhide rope was hanging over the limb of a post-oak, one end of the rope around the neck of the horse-thief. He pleaded so earnestly for his life that sentence was commuted to a sound flogging, the boy promising to go east of the Brazos River and never return. Flogging under such circumstances was a criminal offense in Texas, and as Mr. Reynolds performed the act, he soon met John Newcomb, Deputy Sheriff of Palo Pinto County, who had a warrant for his arrest. The meeting took place in the roadway, but the young Texas cowboy proved too quick for the officer of the law. He threw his revolver down on the Deputy Sheriff, announced that he was on his way to the Stone Ranch, and expected to proceed without any further interruption. Warning the Deputy Sheriff not to follow, Mr. Reynolds rode on to the ranch unmolested. A short time afterwards, however, a new difficulty presented iteslf. Mr. Reynolds was engaged to be married to a daughter of J. B. Matthews, and it was necessary, as the time for the ceremony approached, that the prospective bridegroom should visit Palo Pinto to secure a marriage license. He invited two of his cowboy friends to accompany him. It was not an ordinary procession that rode into the town of Palo Pinto that day. Each man carried a shotgun heavily loaded, and four revolvers. The trio had only one mission to perform, proceeded about it leisurely in broad daylight and without any apparent nervousness, and, although the Sheriff's office received notice of the visit, there was no attempt to stop the proceedings. Mr. Newcomb, formerly deputy Sheriff, has been for years upon one of the ranches of Mr. Reynolds as a trusted employee.

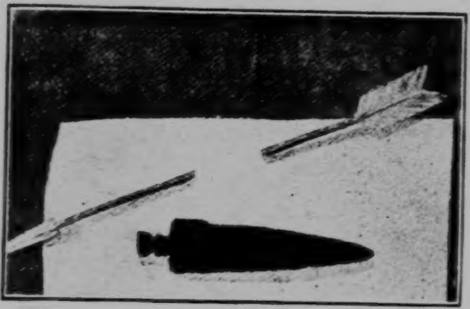
One of the remarkable adventures in the life of Mr. Reynolds—an experience that stands perhaps without a parallel in the history of border Indian warfare—took place on the 3d day of April, 1867. Mr. Reynolds was then twenty-three years of age, fully inured to hardships of the dangerous life he had been leading from the time he first reached West Texas, and had an acknowledged reputation among the frontiersmen of West Texas as an Indian fighter. In company with his brother, William, and eight others, he started upon an Indian trail which led to the mouth of the Double Mountain Fork, in what is now known as Haskell County. The Indians were skinning a buffalo when the white men caught sight of them, but one of the savages started immediately in the direction of the unexpected visitors, a revolver in each hand, firing as he advanced. The bullets flew wide of the mark, and, waiting until the foe had emptied his revolvers, Mr. Reynolds fired, shooting the Indian through the body. When the Indian turned to run, a second shot broke his neck. In the fight which followed an arrow passed into the body of Mr. Reynolds. He drew the wooden shaft from the wound, but the iron arrow-head remained, fixed in the muscles of the back. The blood gushed forth in a volume, and apparently the end was at hand.

"While I was lying on the ground," said Mr. Reynolds, "my friend, Si Hough, rode up and asked: 'Which Indian was it shot you?' 'The one in the red shirt,' was my reply. 'I will have the scalp of that Indian!' exclaimed Hough, with an oath, as he put spurs to his horse and plunged forward. In a few minutes Hough returned, waving a scalp-lock in the air. 'Here's your man with the red shirt,' said he."

Mr. Reynolds was in a desperate condition. More than 100 miles from the nearest physician at Weatherford, with no means of transportation homeward except on horseback, and his home sixty miles away—death seemed absolutely certain. There was one hope, however, that sustained him. He was engaged to be married to a charming young lady, and he determined that death should not interfere with the programme. It was his nerve that saved him. He had assisted many wounded men in the Civil War, and now his experience on the battle-field came into practical use. It was necessary to reach home as quickly as possible, and he had strength to direct that he should be placed across the backs of two steady pack-horses. The constant jar caused the blood to collect in the cavity of the body, and at frequent intervals the wounded man was taken from his position and laid upon the ground so as to allow the blood opportunity of escaping. The journey was a terrific experience, but Mr. Reynolds reached home alive, and five days later, when the physician appeared, the patient had passed the critical stage, and in a few weeks he was again in the saddle.

A feature of special interest connected with the event, as told by Mr. Reynolds, is that his father saw the battle with the Indians in a dream the night before. He saw the arrow sticking through the body of his son, and in the morning he related the vision to his family. He felt that his son was dead, but in this respect the psychic impression was not true. The son lived to marry the girl of his choice, Miss L. E. Matthews, who is by his side at the time of this writing, and has been to him a devoted wife and wise adviser.

The arrow-head, which was the cause of a vast amount of suffering, remained in its place for sixteen years. At last Mr. Reynolds decided to submit to a surgical operation for its removal. He went to Kansas City, and for three days the surgeons consulted as to the possibility of his surviving the proposed operation. Years of suffering had convinced Mr. Reynolds that the head of the arrow was in his body, although the surgeons would not agree that this could be possible. When the operation was finally performed, an iron arrow-head two and a half inches long was found, which had almost worked its way through the muscles of the back. The arrow had, sixteen years before, passed between the folds of the stomach and the intestines without injuring either seriously. Fortunately the stomach was empty at the time. Mr. Reynolds submitted to the operation without the use of anæsthetics. A. E. Pierce, known in the live-stock world as "Shanghai" Pierce, was present when the arrow-head was removed. The relic is now in possession of Mr. Reynolds.



Photograph of Arrowhead Removed from Mr. Reynolds' Body.

The following is the certificate of the surgeon performing the operation:

"*Kansas City, Mo., August* 1, 1882.

"This is to certify that on Tuesday, July 17, 1882, at the St. James Hotel, Kansas City, Missouri, with the assistance of Dr. Griffith, of Kansas City, and Dr. Powell, of New York City, I successfully removed a steel or iron arrow-head from the back of George T. Reynolds, of Fort Griffin, Texas, and that the said arrow-head entered the body in front and passed directly through his abdominal cavity and lodged in the muscles of his back on the 3d day of April, 1867.

"M. B. Lewis, M.D."

In the summer of 1868, Mr. Reynolds drove a herd of cattle through to Mexico. His young wife accompanied him on the trip but the Indians proved too numerous and crafty. They stole all the horses of the party, and the venture did not prove as successful as Mr. Reynolds expected. He accordingly decided to locate a ranch in the North, outside the Indian country, near the cattle-trail, and accordingly established himself in Bent County, Colorado, where now the flourishing town of La Junta is situated. This ranch, he and his brother, William, conducted for a number of years, engaging also during the same time in many live-stock enterprises. In 1870 cattle were brought over the trail from Texas, and the brothers drove them north to Cheyenne and west to Salt Lake, where the cattle were sold at $25.00 a head. Pushing still further west, the Reynolds brothers purchased a herd of California horses, which were delivered to them at Reno, Nevada, and drove the horses back to Colorado, where they were disposed of at a handsome profit. Four years later the brothers drove a second large herd of Texas cattle to Utah and Nevada. This herd was bought of Charles Rivers, near Weatherford, Texas. This transaction nearly cost Mr. Reynolds his life, his escape seeming little short of miraculous. The night before the cattle were finally rounded up and delivered, Mr. Reynolds and Mr. Rivers were sleeping side by side under the same blanket upon the ground. A party of Indians dashed into the camp, filling the air with bullets, one of which passed through the body of Mr. Rivers. The whirlwind passed over the camp, and the stricken man knew that he must die.

"Oh, my poor wife and children!" exclaimed he. "What will become of them?"

Mr. Reynolds had gone into camp two miles away, but visited the camp of Mr. Rivers early in the evening, and was prevailed upon to remain for the night. His own outfit of sixty horses was not discovered by the Indians, but all the horses of Mr. Rivers were stampeded and lost. In the neighborhood was camped J. C. Loving, a brother-in-law of Mr. Rivers. Mr. Loving was summoned to the side of the dying man, whose sense of business responsibility was so great that he requested him to see that the contract with the Reynolds brothers was fully complied with. The wishes of Mr. Rivers were respected, and the cattle were delivered at the appointed time. Mr. Reynolds conducted herds for years to North Dakota and Montana and as far north as the British possessions. He established a ranch in North Dakota, which was maintained for fourteen years, where he delivered over 50,000 head of cattle from Texas. Later, a large ranch was located by the brothers on Milk River, Montana, where many of their Texas steers have been fattened for the market.

A number of times in the course of his history Mr. Reynolds was obliged to take refuge in the thickets from Indians; but one of his narrow escapes was from a heavy whip handle at the hands of an angry German ranchman, whose range was on the plains east of Denver, Colorado. The ranchman's name was Herman. As Mr. Reynolds was passing with a herd of cattle the German appeared and demanded, in authoritative tones, that the cattle should be stopped and rounded up. He desired to look the herd over, claiming that some of his cattle were in it. Although Mr. Reynolds knew the assertion was not true, he acquiesced, and soon the German was at work. The first animal cut out was a black cow with the brand of the elder Reynolds upon her. Ten or eleven more cattle were rapidly separated from the main herd, and the German announced that those were the cattle he claimed. Mr. Reynolds immediately turned the cattle back into the herd. This aroused the German to a furious degree, and he rushed at Mr. Reynolds to strike him with a heavy whip handle. A moment later the assailant was lying on the ground with a bleeding skull. The skull had come into contact with the white-handled revolver of Mr. Reynolds, and a cowboy who came forward at an opportune moment, completed the work of subduing the irate ranchman.

War was now declared. The German swore out a warrant for the arrest of Mr. Reynolds, and for several years Denver was debatable ground for Mr. Reynolds to visit. As the Sheriff, his deputies, and the cowmen generally, were friends of the Reynoldses, Mr. Reynolds always succeeded in receiving the "tip" before the officers of the law arrived at the hotel where he was stopping when necessarily in the city.

Mr. Reynolds has been personally acquainted with nearly all the leading cattlemen of the Southwest since the industry assumed any importance in that region. He was upon the trail with John S. Chisum, John Sparks, Richard King, "Shanghai" Pierce, Seth Mabry, Charles Goodnight, J. C. Loving, C. C. Slaughter, and a score of scarcely less noted names of those exciting times. Kit Carson and Dick Wootton were warm friends of Mr. Reynolds. Si Hough, heretofore named in this article, was one of the peculiar characters of the plains. "Hough," said Mr. Reynolds, "was an ideal plainsman, and was most at home when in the excitement of a fight with the Indians. He lifted the scalp of many a red skin. One day three of us, Hough among the number, were traveling on the Pecos. A war party of 500 Navajoes was in the immediate vicinity, and we were on the lookout. Our horses were almost exhausted, and we knew we were in very bad condition for a fight. Suddenly we saw three men on horseback coming towards us. We were in a peculiar condition, and we expected fight with the chances all against us, for after the fight started the whole 500 red devils would be upon us. Then it was that Hough showed his metal. 'Boys,' said he, 'don't shoot until they come within range of my shotgun. I'm good for two of them.'

"When we had approached a little nearer we threw our glass down on them, and discovered that it was a little party of United States soldiers. It was one of the greatest reliefs of my life. Great drops of perspiration were upon our faces, showing the strain that was upon us."

It is said the bravest men turn pale at the approach of battle, and the acknowledgment of Mr. Reynolds is an evidence of the truth of the statement. It is impossible for a generation living under the blessings of peace and general prosperity to appreciate fully the dangers and struggles which the early cowmen were obliged to endure.

"The plains Indians," said Mr. Reynolds, "had peculiar ideas concerning the future life. In one of our fights in Shackelford County we scalped several of the Indians, but one of the wounded Indians got away and died in a thicket. We returned to the battle-field a few days after the fight. The Indians had paid no attention to those of their comrades who had lost their scalps. Their bodies were left lying upon the ground, as it is a belief among them that the warrior who loses his scalp goes to the bad hunting-ground. We found the grave of the warrior who died with his scalp on. His shield was buried with him with its face to the sand, and in the shield cover was a looking-glass and also a plug of tobacco, wrapped up in a newspaper known as *Brick Pomeroy's Democrat*, bearing date of June 4, 1866. The fight took place in April, 1867. The horse of the dead warrior had failed to carry its rider safely, and therefore was not entitled to go to the good hunting ground, so his foretop was cut off.

"Traveling north on the trail to Kit Carson, in West Kansas, we one night met L. A. Allen, now of Kansas City, and a party of cowmen, bound for the Arkansas valley. They gave an alarming story of the depredations of the Cheyennes upon grading camps along the Kansas Pacific Railroad. We proceeded to Kit Carson, where we arrived at daybreak, and for hours dead bodies were being brought into camp. It was the greatest killing I ever knew the Indians to accomplish, and before night there were forty or fifty bodies laid out at Kit Carson. The Indians had literally cleaned up the grading camps for fifty miles along the railway.

"The Indian is often a good judge of human nature, and he knows the difference between a tenderfoot and a real fighter. One evening on the Yellowstone I sent several men out to establish a camp at the mouth of the river. A band of twenty Indians under Chief Crow-Fly-High rode into the camp as if aching for a fight. 'One more sleep, you go!' commanded the chief, pointing sternly in the direction he wished the campers to take. The men were panic-stricken, and nearly killed their horses getting back to our camp, fully believing they had narrowly escaped with their lives. In reality it was all a bluff."

Mr. Reynolds and his brother, Benjamin, killed the first white buffalo of which there is any record in Texas. The animal was a two-year-old bull, and the skin of this buffalo is in the Smithsonian Institute at Washington. Several white buffaloes were killed in Texas during the period of 1873 to 1878, when extermination of the great herds was in progress upon the plains.

Although Mr. Reynolds has been obliged, far beyond the ordinary, to mourn the death of friends and relatives, on account of Indian atrocities, the death of his brother, Glenn, was one of the heaviest blows he has known. Glenn Reynolds gained a high reputation in Texas as a cowman, ranger, and officer of the law. He moved to Arizona, where, while serving as Sheriff of Gila County, conveying Apache Kid and seven of his followers to the Federal penitentiary, he was murdered.

When quite a young man Mr. Reynolds chained the county line of Shackelford County. He was at his father's house when Captain Sul Ross, of the Texas Rangers, late Governor of Texas, arrived there in charge of Cynthia Ann Parker, who had been rescued from captivity among the Indians.

Mrs. Reynolds, the mother of the family, is still living at the age of eighty-six years, in possession of health and remarkably clear mental faculties. Of her children, the following are alive: George T., W. D., partner of George T. since 1868; B. F., County Judge of Throckmorton County; P. W., in charge of an oil mill at Cisco, Texas; Mrs. J. A. Matthews and Mrs. N. L. Bartholomew, both of Albany, Texas.

Mr. Reynolds has witnessed many great changes in the cattle industry. One of the most disastrous was in 1886, when the firm lost 10,000 cattle from drouth on the plains of Texas. The surviving cattle were driven over the trail to the Yellowstone River, arriving late in the fall, to encounter one of the severest winters ever known on the northern ranges. Nearly all the herd perished in the snow. Through good judgment and active business management, the losses were recouped, and the firm is one of the largest in Texas to-day. Their holdings include large ranches owned or leased in Shackelford, Pecos, and Davis Counties, Texas; in the Black River range, New Mexico; and on Milk River, Montana. Upon these ranges more than 50,000 cattle are grazed yearly. Mr. Reynolds has been for many years extensively interested also in organizing and managing banks, in cotton seed oil mills, and in large enterprises incident to the growth of a growing country. Albany, Shackelford County, was his home until 1901, when he took up his residence in Fort Worth, filling the position of president of the Fort Worth Live Stock Commission Company. He has found time, notwithstanding his numerous business engagements, to travel extensively, and has developed into an enthusiastic fisherman. One of his recent catches was a fish of 350 pounds off Cataline Island.

The life of Mr. Reynolds has been governed by the following principles: To do the best he could in everything he undertook; never to yield to discouragement or to apparent defeat; to deal justly with all men. It is his abiding conviction that the person who lives up to these principles cannot fail of true success.

The Old-Time Cowboy.

The Common Mistaken Notions About Him.—Unfairness of the Judgment Many People Have Passed Upon Him.—His True Character.—Some Outside Ideas About the Cowboy.—Survival of the Fittest.—Loneliness and Silence of the Great Plains and Their Effects.—The Cowboy's Way of "Celebrating" When He Went to Town.—Conditions in the Old Cowtowns.—Cowboys' Fidelity to Their Duties on the Range.—Their Nationality.—Class-Stamp and Caste-Prejudice.—The Texan "Centaur."—The Cowboy's Mode of Riding.—His Garb.—His Horse-Gear and His Horse.—"Bronco Busting."—The Cowboy's Rough Daily Life.—Knowledge of Plains "Sign" Lore.—Unromantic Side of His Experiences.—His Modest Pay.—General Characteristics of the Old Fraternity.—Singing to Sooth and Quiet Cattle.—Beginning of the End of the Old-Time Cowboy Business, Rough Life, and Stormy Career.—His Successors in the Cattle Business in the West.—Changed Conditions on Present-Time Cattle Ranches.—The Old-Timer's Exit from the Scene.

One of the groups of temporary "statuary" with which the great Louisiana Purchase Exposition at St. Louis in 1904 was embellished represented four yelling cowboys mounted on galloping "cow-horses" and firing their revolvers in the air—"shooting up the town." No doubt a large majority of the visitors to that incomparable exposition who saw this group regarded it as being truly typical in its representation of the cowboy of the old cattle-trails and of the bygone days of the open range.

It would seem that no class of men ever was so unfaithfully represented, whether intentionally or unintentionally, and in consequence of this so wrongfully understood and unfairly judged by the people generally, as that of the old-time cowboys has been; and it is to be regretted that this class of western pioneers was figured at this great Exposition in a form so well calculated to lend support to and to perpetuate the mistaken common notions that the general public has concerning these men.

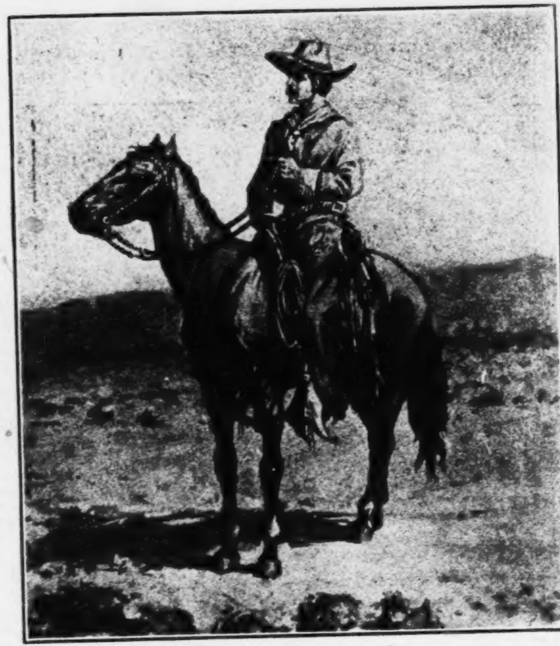
Of the typical cowboy Mr. Emerson Hough, in his most interesting book, "The Story of the Cowboy," says:

"What was really the life of this child of the wild region of America, and what were the conditions of the life that bore him can never be fully known by those who have not seen the West with wide eyes. Those who did not, but who looked superficially and superciliously, remembering only their own surroundings, and forgetting that in the eye of Nature one creature is as good as another if only it prevail where it stands, were content with distorted views of that which they saw about them. Having no perspective in their souls, how could they find it in their eyes? They saw color but not form in these wild men of the wild country. They saw traits but did not see the character beneath them. Seeking to tell of that which they had not seen, they became inaccurate and unjust. Dallying with the pleasant sensation of exciting themes, they became grotesque instead of strong in their handling of them.

"The cowboy was simply a part of the West. He who did not understand the one could never understand the other. Never was any character more misunderstood than he; and so thorough was his misrepresentation that part of the public even to-day will have no other way of looking at him. They see the wide hat and not the honest face beneath it. They remember the wild momentary freaks of man, but forget his lifetime of hard work and patient faithfulness. They insist upon the distorted mask and ask not for the soul beneath it. If we care truly to see the cowboy as he was, and seek to give our wish the dignity of a real purpose, the first intention should be to study the cowboy in connection with his surroundings. Then perhaps we may not fail in our purpose, but come near to seeing him as he actually was, the product of primitive, chaotic, elemental forces, rough, barbarous, and strong. Then we shall love him because at heart each of us is a barbarian, too, and longing for that past the ictus of whose heredity we can never eliminate from out our blood. Then we shall feel him appeal to something hid deep down in our common nature. And this is the way we should look at the cowboy of the passing West; not as a curiosity, but as a product; not as an eccentric driver of horned cattle, but as a man suited to his times."

Theodore Roosevelt, in his "Ranch Life and the Hunting Trail" (1888), bears this testimony to the intrinsic character of the typical cowboy:

"It is utterly unfair to judge the whole class by what a few individuals do in the course of two or three days spent in town, instead of by the long months of weary, honest toil, common to all alike. To appreciate properly his fine, manly qualities, the wild rough rider of the plains should be seen in his own home. There he passes his days, there he does his life-work, there, when he meets death, he faces it as he has faced many other evils, with quiet, uncomplaining fortitude. Brave, hospitable, hardy, and adventurous, he is the grim pioneer of our race; he prepares the way for the civilization from before whose face he must himself disappear. Hard and dangerous though his existence is, it has yet a wild attraction that strongly draws to it his bold, free spirit. He lives in the lonely lands where mighty rivers twist in long reaches between the barren bluffs; where the prairies stretch out into billowy plains of waving grass, girt only by the blue horizon,—plains across whose endless breadth he can steer his course for days and weeks and see neither man to speak to nor hill to break the level; where the glory and the burning splendor of the sunsets kindle the blue vault of heaven and the level brown earth till they merge together in an ocean of flaming fire."



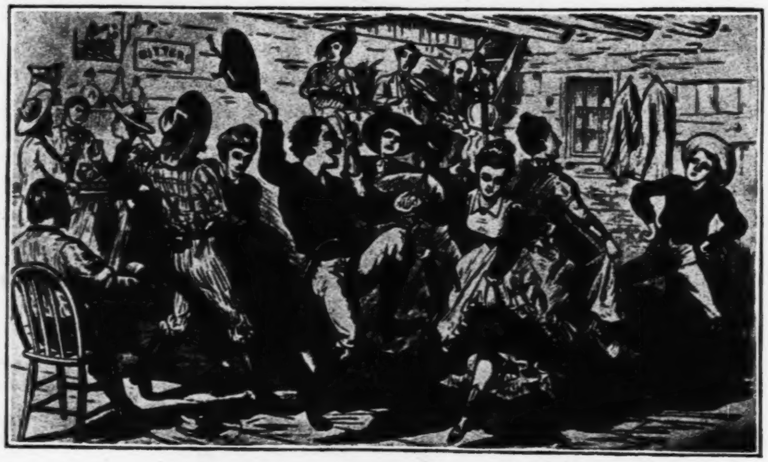
The Cowboy.
(*From Hough's "Story of the Cowboy."*)

Twenty or twenty-five years ago most through travelers upon the plains railroads seemed to regard the cowboy as a creature indigenous to the range country—the same as the antelope, the coyote, and the prairie "dog," and were even more eager to catch sight of one of the species than they were to see any of those which went on four legs. The people had read about the cowboy, and so they had their ready-made notions as to what he should look like and as to how he should act; and therefore they accepted any broad-hatted, weather-beaten lounger around the railroad stations as a man just in from the cattle-range. If he happened to have a "gun" strapped to him, and could be imagined to be wearing an expression of disappointment because the moment afforded him no occasion for unlimbering his artillery and furiously going into action, he was at once raised to the rank of a "bad man" cowboy, though he may never have seen a herd of cattle on the range, and his character and reputation may have been such that he could not have stayed longer than over-night in any cow-camp in the country; and then only when he had pleaded distress and was kept under surveillance.

Perhaps in no other occupation of men was the theory of the "survival of the fittest" more plainly demonstrated in practice than in the quick weeding out of the weaklings, of the visionary, and of the inherently depraved, among those who undertook the cowboy life. The first to go were those physically unable to stand the labor and hardships of the range. The second, while physically strong, found the life so far different from what they had pictured it that they dropped out as they realized that it was a daily round of duty and work under a code of rules and customs which, though not having the form of statutory law, were in practice almost as rigid as the regulations of an army. For several years after the Civil War a considerable number of the second class turned cowboys, but such men, as a rule, could not stay for long. In the close communion of cowboy life on the trail and the range, where trust, faithfulness, and the spirit of brotherhood and mutual confidence had to be, a man inherently depraved was out of place.

As a class, the cowboys were no such lawless beings as they have so often been represented. They were hardy, fearless, and reckless, products of the conditions by which they were surrounded, but not vicious as a body. Their life was one of hardship, isolation, and self-denial, yet through it all, loyalty to the interests of their employer was steadfast; and whatever might be the privations of their occupation they met and endured them uncomplainingly. Very few of the noted western desperadoes—"professional man-killers"—ever were cowboys or in any way connected with the range-cattle business. These infested the ghastly frontier towns of the cowboy era, for the lonely life of the range was not to their liking.

Truly, it was a lonely life. On the great open ranges the whole outlook soon became one vast, featureless, confusing impression, like that derived from the ocean. Moreover, the general aspect of the plains was, as it still is where the works of men have not disturbed it, one of sadness—even of melancholy. The land seemed to be grieving over something that was lost forever. Then there was the silence of it. This was unlike that of mountain solitudes and different from that of the sea. It was of a kind that does not submit to "description." The effects of the atmosphere of sadness, of the loneliness, and of the unbroken quiet of the vast stretches of the plains became oppressive, burdensome, maddening. No one unfamiliar with them can understand what these effects were. They bore down upon the mind as would a heavy weight upon the body; and a torturing heartache then kept company with a sense of exile. Under the burden of these depressing influences men felt like crying aloud in feeble attempts to break the wall of silence and loneliness by which they were encompassed; and often they did so. In some instances reason was dethroned, for it is a peculiarity of man that he can better endure almost any other condition than that of solitude. But recently a case of insanity from these causes became personally known to the present writer. It was that of a young man engaged in sheep-raising in Wyoming, whose unbalancing plainly was due to the depressing effects of his solitary life on a lonely range. It is doubtful if ever there was a cowboy who did not, at times at least, feel the burden of these influences; and the cattle not uncommonly showed that even they were not immune.



A Cowtown Dance-House.

Is it any wonder then that the cowboy who went with a trail-herd to one of the old wild and woolly cowtowns after months, maybe a year, of such isolation as this, "turned loose," as he called it, and even sounded the depths of the iniquities that dominated in these miserable places? or need we be surprised when told that upon his more frequent visits to his nearest grizzly local hamlet he took possession of the place and for a day or so "run" it to suit himself, or tried to? need it seem strange to us that the "attractions" of such aggregations of vice and crime as the old Abilene, or Great Bend City, or Dodge City, demoralized him and brought him low—though they made him a victim more often than they made him a "terror"? Has the reader ever had the experience of sudden relief from some mental strain? has he had the eager feeling that follows the off-casting of a load that has borne him down? or has he ever had the buoyancy of spirit that comes with a return from a sojourn in the wilderness to the haunts of his fellow-men? If so, as to either, probably he may in a measure understand how it came about that the cowboy, fresh from the loneliness of the range or from the drudgery of the trail, when he found himself in the midst of houses and people, "painted the town" in variegated colors and made a fool of himself generally, without necessarily having been a bad man at heart.

While a trace of the savage element still lingers in the blood of most of us, the gregarious instincts of our species are so strong that we are likely to be impelled to "celebrate" in some way the end of any separation from our fellow-creatures that circumstances may have imposed upon us. This is exactly what the cowboy usually undertook to do when he went to town. Perhaps our ways of doing this would not be such as his were, but in the spirit and motive probably there would be little if any difference. As Mr. Roosevelt remarks in his "Ranch Life and the Hunting Trail," these wretched cow-towns were places "in which drinking and gambling are the only recognized forms of amusement, and where pleasure and vice are considered synonymous terms."

View on the Great Wide Plains.
(*From a Photograph.*)

The frontier towns of the West in the cowboy period also were products of the conditions that existed. A transformation was in progress. Civilization was pushing its way onward with the irresistable force of the prodigious glaciers that in distant past ages moved over parts of the same country, and, as with these glaciers, its front was shoving ahead a morainic mass—a conglomeration of human *débris* and of harsh forces of both mankind and Nature.

Coming from the haunting and oppressive solitude and silence of the plains into these places of disorder and vice, many of the cowboys behaved as if they were dazed by the change of scene and surroundings. They were no longer the reserved, self-repressed men of the range, but threw off all restraint, and measured their "enjoyment" of their few days of freedom and revelry by the degree of uproar with which they proclaimed their presence.

Of some of the cowboy's ways and means of having "a good time" in the hideous old cow-towns of the trail period, McCoy, in his "Sketches of the Cattle Trade" (1874), draws the following vigorously vivid picture, in which, though he had "Abilene in its glory" in mind when he wrote, are reflected scenes and incidents that were common to each and all of the others:

"When the herd is sold and delivered to the purchaser, a day of rejoicing to the cowboy has come, for then he can go free and have a jolly time; and it is a jolly time they have. Straightway after settling with their employers the barbershop is visited, and three to six months' growth of hair is shorn off, their long-grown sunburnt beard is 'set' in due shape, and properly blacked; next a clothing store of the Israelitish style is 'gone through,' and the cowboy emerges a new man, in outward appearance, everything being new, not excepting the hat and boots, with star decorations about the tops, also a new—well, in short, everything new. Then for fun and frolic. The bar-room, the theatre, the gambling-room, the bawdy-house, the dance-house, each and all come in for their full share of attention. In any of these places an affront, or a slight, real or imaginary, is cause sufficient for him to unlimber one or more 'mountain howitzers,' invariably found strapped to his person and proceed to deal out death in unbroken doses to such as may be in range of his pistols, whether real friends or enemies, no matter, his anger and bad whisky urge him on to deeds of blood and death.

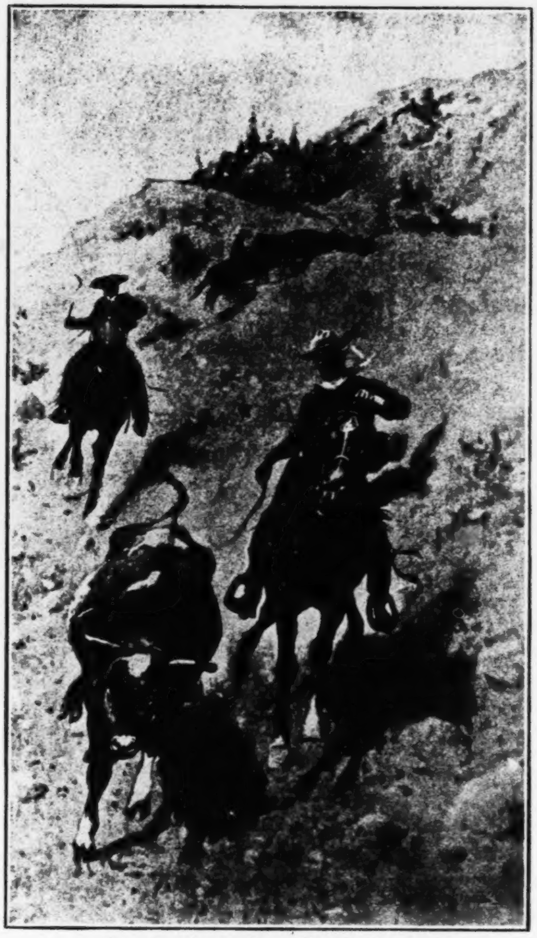
"At frontier towns where are centered many cattle, and, as a natural result, considerable business is transacted, and many strangers congregate, there are always to be found a large number of bad characters, both male and female; of the very worst class in the universe, such as have fallen below the level of the lowest type of the brute creation. Men who live a soulless, aimless life, dependent upon the turn of a card for the means of living. They wear out a purposeless life, ever looking blear-eyed and dissipated; to whom life, from various causes, has long since become worse than a total blank; beings in the form of man whose outward appearance would betoken gentlemen, but whose heartstrings are but a wisp of base-sounding chords, upon which the touch of the higher and purer life have long since ceased to be felt. Beings without whom the world would be better, richer, and more desirable. And with them are always found their counterparts in the opposite sex; those who have fallen low, alas! how low! They, too, are found in the frontier cattle town; and that institution known in the West as a dance-house is there found also. When the darkness of the night is come to shroud their orgies from public gaze, these miserable beings gather into the halls of the dance-houses, and 'trip the fantastic toe' to wretched music, ground out of dilapidated instruments, by beings fully as degraded as the most vile. In this vortex of dissipation the average cowboy plunges with great delight. Few more wild, reckless scenes of abandoned debauchery can be seen on the civilized earth than a dance-house in full blast in one of the many frontier towns. To say they dance wildly or in an abandoned manner is putting it mild. Their manner of practicing the terpsichorean art would put the French 'Can-Can' to shame.

"The cowboy enters the dance with a peculiar zest, not stopping to divest himself of his sombrero, spurs, or pistols, but just as he dismounts from his cow-pony so he goes into the dance. A more odd, not to say comical, sight is not often seen than the dancing cowboy; with the front of his sombrero lifted at an angle of fully forty-five degrees; his huge spurs jingling at every step or motion; his revolvers flapping up and down like a retreating sheep's tail; his eyes lit up with excitement and liquor, he plunges in and 'hoes it down' at a terrible rate, in the most approved yet awkward country style; often swinging his 'partner' clear off the floor for an entire circle, then 'balance all' with an occasional demoniacal yell, near akin to the war whoop of the savage Indian. All this he does, entirely oblivious to the whole world 'and the balance of mankind.' After dancing furiously, the entire 'set' is called to 'waltz to the bar,' where the boy is required to treat his partner, and, of course, himself also, which he does not hesitate to do time and again, although it costs him fifty cents each time. Yet if it cost ten times that amount he would not hesitate, but the more he dances and drinks, the less common sense he will have, and the more completely his animal passions will control him. Such is the manner in which the cowboy spends his hard-earned dollars. And such is the entertainment that many young men—from the North and the South, of superior parentage and youthful advantages in life—give themselves up to, and often more, their lives are made to pay the forfeit of their sinful foolishness."

Beside such indoor dissipation as this, the cowboys, when in the cowtowns, would indulge in open-air demonstrations not well calculated to add to the sense of security in others who were abroad on the streets. After "loading up" with poisonous whisky, which was about the only kind sold on the frontier, a group of them would mount their ponies and put off at a gallop to "shoot up the town." Tearing up and down, yelling and whooping, and shooting here and there, or firing wildly into the air, they made themselves believe they were "seeing something of life." They might ride into a saloon and up to a bar to call for more liquor, and while waiting for it divert themselves by putting bullets through the mirrors, bottles, and other glass "furniture" of the outfit, and so bring on a mêlée in which one or more of their number would suffer from the revolvers or shot-guns of the exasperated keeper of the place and his partisans.

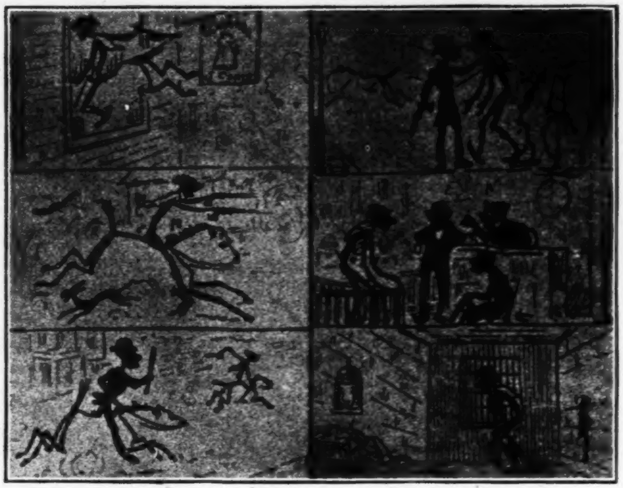
Nevertheless, it was not these follies, wild and foolish as they were, and that dissipated every dollar of a season's wages, that characterized these cowboys as a class. After several days of such debauchery and frolicking, those who had engaged in these "celebrations" and had not found a permanent abiding-place in the local "Boot Hill," turned their faces and their ponies rangeward and set out to resume the daily round of hard labor under conditions that were equally hard, if not harder, but in which faithfulness to duty and fidelity to their employers' interests were their foremost considerations. It was this willing faithfulness, under circumstances which put it to the most trying tests, that characterized the cowboy in filling the place that fell to him during the years in which civilization was forcing its way into and over the immense wild land of the West.

However, not all these men took part in the orgies and debaucheries of the cowtowns, or forgot themselves at other times or in other places. There were many, even in the "wildest and woolliest" period, who steadfastly held themselves aloof, kept their wits about them, saved their wages, and successfully became range-stockmen on their own account in later years.



Rough Chase of an Unruly Steer.

Before the close of the period of the trail and of the open range the western cowboys had developed traits, manners, and practices that may be said to have made them a separate class of men. A large majority were native-born Americans, but in their ranks there were many young Englishmen, Irishmen, and Scotchmen, together with some of German origin. But the life brought all so close together that those of alien birth hardly were distinguishable from the others after a few years. Their manner of living and the routine of their occupation were the same from Texas to Montana; conditions then existing in the West also were much the same over the range country from far South to far North, and so the influences of these combined to impress upon this remarkable body of men a sort of "hall-mark," a distinctive and not unattractive class-stamp.



A Tale Without Words.
(From Sweet and Knox's "On a Mexican Mustang Through Texas.")

For some ten or fifteen years after the Civil War there was a considerable number of Mexican cowboys on the range, most of them being from the southern parts of the country. These were skilful men in every branch of the work and did it well, but the standing objection to them on the part of the employers was that they were rough, abusive, and unfeeling in their treatment of the stock, and personally untrustworthy. Between these and the others there seldom was any of the fraternal feeling, and usually the caste-prejudice placed the Mexicans under great disfavor from the start; a prejudice that was stronger among the Texans than among their brethren in the North, but with all it was sufficient soon to make the combination a disagreeable one.

Among these old-time cowboys the Texans and those of Texan antecedents were the most efficient for all-around work on the range and on the trail. Nearly all of them lived and moved as if they had been born in the saddle and had seldom been out of it since. They hesitated about doing anything outdoors on foot, and if they had to go but a few yards they would mount their horse for the journey—a habit, however, that was but little less fixed among the entire fraternity. While all cowboys had to be good horsemen, the Texan was, it would seem, as skilful and daring a rider as he could have been were he and his pony grown together. Of him Sweet and Knox, in their book, "On a Mexican Mustang Through Texas" (1883), in which only the amusing side of life in Texas at that time is set forth, say:

"The cowboy is a man attached to a gigantic pair of spurs. He inhabits the prairies of Texas, and is successfully raised as far North as the thirtieth degree of latitude. He is in season all the year round, and is generally found on the back of a small mustang pony, 'wild and savage as a colt of the Ukraine.' This fact has given rise to a widely diffused belief that the cowboy cannot walk; and he is often cited as an instance —a stupendous manifestation, in fact—of the wonderful working of Nature to adapt her creatures to the circumstances surrounding them. It is argued that once the cowboy was a human being,—a biped with the ordinary powers of locomotion,—but that during the course of ages, becoming more and more attached to his horse, and having gradually ceased to use his legs, these important adjuncts have been incapacitated for pedestrian uses, and thus the cowboy and his pony have developed into a hybrid union of man and horse,—an inferior kind of centaur.

"Some scientists, however, dispute this, as several specimens of the cowboy have been seen, from time to time, who, wandering into the busy haunts of man, have—under the influence of excitement, and while suffering from intense thirst—been seen to detach themselves from their mustangs, and disappear into business houses, where their wants were attended to by a man wearing a diamond breastpin and a white apron. Yet, though this was proved beyond a doubt by several competent witnesses, it was acknowledged that the specimens alluded to walked, or rather staggered, with uneven and wavering steps. This, however, does not disprove the development theory."

Between the cowboy's riding and that of the Eastern man who exhibits himself on horseback in city parks or "follows the hounds," no comparison can be made. It is only to be contrasted. It would seem that a better rider than this cattle-guarding man of the plains never lived, and certainly his ease, litheness, and gracefulness in the saddle, contrasted with the usual trussed-up, apprehensive, and sometimes simian-like, attitude of the park horseman, made the latter appear ridiculous. While the cowboy had an elaborate vocabulary of forceful adjectives at his command, he found himself unable fully to express the disdain with which he regarded the little pad-saddle—or "postage-stamp-saddle"—and the short-hitched stirrups of the conventional rider. He would have none but a "real saddle," and his stirrups hung just enough above the lengths of his legs to afford his feet a firm hold in them. When riding he did not perch in his stirrups, but rested his body upon the saddle and kept it there without letting daylight show under him; and, it may be remarked here, this continues to be the ranchman's mode of riding, as well as that of nearly all other Western men who have occasion to mount a horse. In his large and comfortable saddle with its long-hitched stirrups the cowboy could do with ease and grace all that is possible to the conventional horseman, beside a multitude of things that the latter would not dare to attempt.

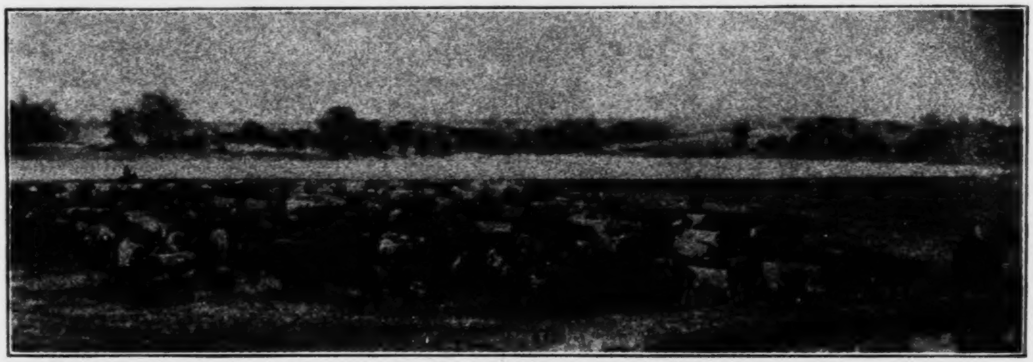
The cowboys' garb added much to their "picturesqueness" in the eyes of those who came from afar; and, indeed it was picturesque. As individual tastes among them varied only as to details, their working costume was about the same in every part of the cattle country, excepting in winter on the central and Northern ranges, when and where more "bundling up" was necessary. But everywhere, from early in the spring until late in the autumn, their apparel was almost as much the same as the uniform of the soldiers of the regular Army. In the period of the trails and the open-range the cowboys in the main were young men, grizzled plainsmen only occasionally appearing among them; and a regiment of them gathered promiscuously from Texas to Montana would have met army requirements as to age, as well as appearing as an uniquely uniformed body of cavalry.

But considerations of the picturesque had nothing to do with fixing the characteristic dress of the cowboy. This, like its wearer, was an evolution—a product of conditions that was adapted to the service it had to render; and its wearer had no thought of real or imaginary theatrical effects the combination might produce. The broad-brimmed, soft felt hat, with the brim turned up in front, was to him the most serviceable known form of head-gear; and this and his leather "chaps" or overalls, often of goat-skin tanned with the hair on and worn with the hair outside, were the more conspicuous features in the make-up of his working costume. His other clothing was such as he found "ready-made" in the clothing stores of the country towns. He wore a heavy, loose-fitting flannel shirt with a handy pocket or two in it, and a large handkerchief, usually of bright-colored silk, tied around his neck. His trousers, which were kept in place by a belt—never by suspenders—were tucked into the tops of his boots; but the chaps came down full length over the trousers and boots and touched the ground—often dragging a little. His body-covering was easy-fitting and free, but that of his feet was quite different. Here he would wear nothing but tight-fitting boots—the tighter the better in his estimation, and these boots must have very high heels. Their tightness and their lofty heel had a sort of crippling effect when he was upon the ground, and in walking he went sometimes with a kind of toddling gait. However, as the cowboy seldom walked and never very far, his foot-gear, uncomfortable as it would seem to have been, never troubled him much. But in the cowboy era the wearing of high-heeled tight boots, things that are only occasionally are seen nowadays, was not confined to his fraternity. They were common then, and nearly every Western man wore them, and would have considered himself quite "out of style" with any other kind on his feet—especially when he was "dressed up."

It has been said that the high heel of the cowboy's boot was for the purpose of keeping his foot from slipping forward through the stirrup, and thus putting him in an ugly predicament should he be thrown by some mishap. But as many of them had leather hoods attached to the front of their stirrups to prevent this—hoods which sometimes were very extravagant in the consumption of leather in their making—and as all cowboys refused other than high heels, this explanation seems hardly to fit the case.

However, their dress, including their favorite boots, was satisfactory to them, and, as a whole, was perfectly suited to their business in life. Their chaps were taken over from the Mexicans, but the rest of their apparel was developed by them along the lines of "natural selection."

The cowboy's strictly personal outfit was completed by the addition of a trustworthy revolver, usually of heavy caliber, that could be depended on in emergencies to open a way for daylight through the bodies of hostile creatures he encountered, including those of his own species; and a pair of huge spurs that rarely were used up to their full capacity for stirring up a horse or for punishing him. In the times when the Indians made the cowboy's daily life that of a soldier in war, as well as that of a herdsman, a carbine, or a short-barreled rifle, also was carried, slung to the saddle with the muzzle downward; and in those times he often had use for this weapon of longer range. We should not forget that this pioneer, who, in the mistaken beliefs of many people principally is associated with scenes of rowdyism in the old cowtowns, had, through many years in his career, to be a warrior of the plains as brave as the bravest, while he was also the care-taker of other men's property.



Scene on a Texas Range.
(*From "The Cattle Industry of Texas."*)

The cowboy's saddle was unlike that of most other horsemen, and among his personal belongings his chief interest centered upon it and it was the pride of his heart. It was customary in most parts of the range country for him to provide his horse-gear at his own cost, and his willingness to spend his hard-earned money for what he regarded as a fine saddle usually ran into rank extravagance. For one that had struck deep into his fancy he would eagerly give up his pay of several months, and be happy with his acquisition until some crafty saddler brought out another that out-classed it in ornateness. The old-time cowboy's saddle was a heavy, strongly-made affair, with both cantle and pommel, or horn, very high, and with large skirts. The high cantle would seem to have been of no general utility or advantage, but the high and strong pommel was a daily necessity in his business, for it came into play in various ways. When he roped a rebellious steer and brought him up short, the cowboy's end of the rope was hitched around the saddle-horn; when one of his herd of cattle mired in a bog and had to be helped out, he threw his rope over its horns, made his end fast to the saddle-pommel, started his horse, and tugged away; and when a wagon became stuck, or when the team pulling it was unable to climb a hill without assistance, the rope fast to the saddle-horn was the means of overcoming the trouble. Most of the saddles were provided either with pockets or small saddle-bags for odds and ends of things; and a blanket or two, together with a few extra garments, were carried in a roll behind the cantle in the cavalryman's fashion. About the bridle there was nothing especially noteworthy excepting the heavy curb bit, which appeared to be a rather cruel contrivance, but which was necessary in most cases in controlling the kind of horses used on the trail and the open range.

The mustang, bronco, or cayuse, by whichever name the beast happened to be called, was not, as is "popularly" supposed, the cowboy's ideal of a horse. Our friend was a good judge of horses, and was ambitious to become the owner of a fine one. For his work he took the best he could get, but, as with many others of the concerns of his hard life, he had to be content and to get along with what was available—to make the best use of the means at hand. The typical cow-horse, or pony, was, upon the whole, well adapted to his place, being tough in constitution and inured to all the hardships of life on the open plains. In his lightness of foot and quickness of motion he was far better adapted to his rough work in managing cattle than any other type of horse could have been. But, as he fed on grass alone, he did not have, size for size, the main strength of the grain-fed farm horse. Hence the need in the old times for so many horses on the range in proportion to the number of cowboys. To each of the latter, according to the work in hand, there were from six to twelve horses, to be used in turn—a circumstance in which is reflected the remarkable vigor and endurance of the man who rode them.

The Horse Herd.
(From Hough's "Story of the Cowboy.")

These cowboys were absolutely fearless riders, and the breaking in and management of their half-wild and, at the start wholly rebellious, steeds, was a job that called for skill and courage. Within recent times exhibitions of "bronco-busting" have been made a popular form of entertainment for the public in several western towns, and the young men who have participated in them have shown great skill and daring in conquering unruly horses. But this kind of business was almost a daily affair in the life of the old-time cowboy. It was only one of the things he had to do, and he did it without thinking much about it, or ever dreaming that some day it would be made the means of commanding the applause of a multitude. There were horses in every old range outfit that were as ugly and vicious when threatened with the saddle and bridle as any that ever have been seen in a "bronco-busting contest," and some that were even more so—that became habitual fighters, and pitched and plunged and bucked every time they were put under saddle. But the cowboy of that period regarded an encounter with one of these merely as an incidental duty in a day's work.

"Bronco-busting" is an ancient performance, the pioneer in it having been the prehistoric benefactor of his race, who was first to bestride a horse and show to his friends and neighbors that the beast could be made to carry a man on his back. The most famous of historical bronco-busters was Alexander the Great, king of Macedon (356–323 B. C.), who, having conquered the entire civilized world before he was thirty, wept because there were no more nations left for him to invade and subdue. When only thirteen years of age Alexander mounted and brought to terms the fiery and plunging steed, Bucephalus ("ox-head"), so called, because he had a white spot on his nose shaped somewhat like the head of an ox. Bucephalus had thrown, or "bucked" off, groom after groom, but the boy Alexander mounted and "busted" him within a few minutes—according to the story.

In the days of the open and free range the cowboy often slept on the bare ground wrapped in his blankets, taking philosophically whatever sort of treatment the elements might see fit to bestow upon him. At other times the dug-out, or the shack, or the tent, of an outlying camp afforded him some shelter. He ate his meals sitting on the ground at the tail-end of the mess, or "chuck", wagon that followed the movements of the herd, and his utensils in this service consisted of a tin plate a tin cup, and sometimes a knife and a fork. His fare was as plain as his mode of life, but he found compensation for its lack of variety and the crudeness of his surroundings when "at table" in an appetite that had few equals and no superiors. Although he had thousands of cattle in his keeping, milk, cream, and butter practically were unknown to his commissariat. Of the range country in the old times it was said that "there are more cows and less butter, more rivers and less water, and you can see farther and see less, than in any other country in the world."

Many of the cowboys became almost as well versed in "sign" lore as the earlier plainsmen, the traders, and trappers, had to be. All manner of tracks, trails, and marks were to them data from which to draw conclusions; some peculiar movement of an animal indicated the presence of some other animal in the neighborhood; by the course and even the "feel" of the wind they forecasted changes of weather; a broken limb of a tree, a crushed weed, the *débris* around a deserted camping-place, the flight of a buzzard or other birds, were to the experienced cowboy, as they had been to the traders and trappers, what sign-boards and advertisements are to dwellers in settled communities.

In recent times the story-writers have been turning to the cattle ranches of the West for "material," and their "romances of the range" have become very popular. But the conditions in which the characters in many of these tales are represented as living and moving are far from those which surrounded the cowboy of the free range and the old trails. The average modern ranch-house is a comfortable home; generally speaking, the cattle graze unattended in fenced pastures; and the daily round of duties of the men in charge is much nearer like the routine on a large farm than to the life and work of the cowboys of the wild and open range. No matter how much there may be of "romance" in the present-time ranch-life, there was precious little of it in the experience of the range herdsman of a quarter of a century or so ago.

Of the cowboy of that period and of his decidedly unromantic life and business, Mr. Andy Adams, author of "The Log of a Cowboy" and of other Western stories, himself one of the old brotherhood, says in a recent magazine article:

"To describe the rank and file of this once splendid army of horsemen is no easy task. The same ground has been thoroughly covered before by pen and pencil and under limelight and slow curtain. To take any other than the popular view of this swaggering type, girdled with guns and rigged in the supposed regalia of the range, is to invite censure. Does the cowboy deserve credit for being a fine horseman when his work required him to be such or abandon his calling? True, the occupation was one that demanded the strenuous and weeded out the weakling. But are there no other avenues in life to-day that require daring and courage to meet the emergency with promptness and dispatch? 'Yes, but not so romantic,' some one answers. Romantic! Ask any man who ever made a trip over the trail if he was ever caught on the plains in a rain-storm with no fuel but buffalo chips. Ask him how many days passed without being able to make a cup of coffee, and did he really enjoy saturated clothing and wet blankets, and how far from the wagon would a herd drift on such a night. Ask him if he ever worked in the North, when every morning he shook the drifting snow from his blankets, and in the eye of a blizzard rode to turn a winter-drift of cattle. If he answers in the affirmative, inquire further if he was ever lifted out of a saddle, benumbed with cold, and did he really feel that the occupation was a romantic one. If still unsatisfied, ask him from a sanitary standpoint if there was anything would beat spreading his underclothing on an ant-hill to remove the vermin."

Yet for all of this, and for much more, too, his wages were not large enough to make him purse-proud, nor did they warrant the open-handed generosity of his kind. The cowboy was not what most people now would look upon as a well-paid man. Around thirty years ago, in the times when the raucous and brawling cowtowns were mazes of snares and pitfalls for him, many of his class were working for from $20.00 to $25.00 per month and "keep," such as the latter was; though the experienced trailman was paid more for his services while on the trail. But the cowboy then required that his wages be in the form of "hard money"—a stroke of business sagacity that stood out in sharp, almost comical, contrast with the foolish recklessness that was characteristic of the brotherhood as a whole in spending the money. At that time the Mexicans in the calling were content with even less, few of these receiving more than $12.00 or $15.00 per month, "and found." These also did business with their employers on a specie basis; and with many gestures of

A Resting Herd.
(*From a Photograph.*)

suspicion, and even of contempt, repudiated a tender of paper money for any amount. In later years the cowboy's wages moved higher notch by notch, and before railroads and wire fences had put him out of business his pay ranged from $30.00 to $40.00 by the month in the specie-basis currency of the land, with a "keep" that averaged much better than he had known in the earlier years. By this time, while he still was a generous soul, he had become much less reckless in squandering his money.

For such money-pay as that which is represented by the figures set down in the foregoing, the cowboy lived the life of which something is suggested in our quotation from Mr. Adams. For him it had a fascination that is hard for us to understand. He braved the elements in the parts of our country where their extremes are to be seen at their worst; or, at all events, where the conditions made them seem to be at their worst. If the reader ever has been abroad upon the great, lonely, grieving plains, far away from any sign of the presence of his fellow-men, when a blizzard out of the north was sweeping in fury over the land, he will recall the sense of utter desolation by which he was seized, the feeling of helplessness that bore him down in the presence of such forces in such a situation. The howling, freezing wind drives swirling, blinding sheets of shotlike sleet and powdery snow that sting and smother and blot out all the world around and wrap the hills and valleys in a winding-sheet of ice. In the opposite season, when the sun might burn and burn in a cloudless sky, week after week, even month after month, withering and shriveling the grass, glaring the land with its shimmering, blistering heat, and wasting the water of the streams and pools into nothingness, the cowboy patiently still went on with his work and did the best that was in him—for a few dollars for a month of his time, services, and for his knowing how. He liked his work, took pride in it, and knew of nothing that would or could induce him to neglect it. When the rolling clouds of the summer tempest blackened the sky, and the lightning flamed and crashed and roared, terrifying the horde of beasts that was in his keeping and startling them into the dreaded stampede, he rode forth with no thought save that of doing his duty; though he knew that Death, in a form so cruel that we shrink from thinking of it, under the hoofs of his surging and plunging herd might be waiting for him out yonder on the prairie, or be lurking at the base of the steep bank of a sandy river-bed a mile or two farther away, over which he and many of his cattle were likely to plunge to a common fate.

A Later-Time Texas Cowboy.
(From "The Cattle Industry of Texas.")

Many of the employers of these men were either non-residents or dwellers in the towns or cities of the States and Territories in which their herds were located. They might visit their ranches and remain a few days once or twice a year, but at all other times their property was wholly in the keeping of their cowboys under the direction of a foreman or manager, who usually was a man who had been promoted from the ranks. The success of the enterprises and even the preservation of the large capital invested in them were, so far as the conduct of affairs on the range determined these, dependent on the faithfulness and prompt attention to duty under all circumstances of the foreman and his cowboys. In the history of the cattle range the instances of failure to meet these exacting requirements are few and far between.

Among these men there were many of good address and some of excellent education—young fellows who had struck out into the West to take their chances with Fortune. Whatever they may have been or done when "in town," they were as a class frank, honorable, and hospitable when on the range, although they were disposed to be quiet and reserved in their manner in the presence of strangers. But, as a rule, their silent ways were not those of moroseness. In most of them there was a grave, unostentatious courtesy toward a visitor; this being particularly noticeable in those of the South, to visitors who had come from that part of the country. Their reserve, however, fell away in their associations with each other, and, when a number of them were gathered around a camp-fire, or at ranch headquarters, or at a round-up, they were lively enough among themselves, and in their stories, sallies, and railleries there was much coarseness of language. But no more than one would hear among an equal number of miners in a western mining town; perhaps not so much, and certainly it would not be heard so often. They were strongly disposed to be clannish, and, while there were occasional feuds between individuals that usually ended in the death of one or the other, sometimes of both, as a body of men they would fight for each other to the last.

The cowboy was not a garrulous person. He had developed to a remarkable degree the faculty of expressing himself in the terse, crisp, clear-cut language of the range, and when he spoke his hearers had no good reason for misunderstanding his meaning. The long-winded and pompous speeches that have been attributed to men of his calling in some of the late-time "stories of the range" would have turned gray the hair of an old-timer had he been forced into an attempt to "get them off." Under reasonable provocation he was a profane man. Few, even among his most ardent partisans, would undertake to controvert this assertion. But he did not depend upon the commonplace, shop-worn terms of the town plodder. However, it is to be said that it was an uncommon thing for him to break forth with his full powers without fair justification. For this purpose he had a most astonishing vocabulary, and in dealing with a detestable range-horse, or in striving to make a half-wild, long-horned, obstinate steer behave himself and go the way that he should, nothing but its vigorous employment appeared to fit the circumstances of the case. For use upon such occasions, and also upon sundry others, every well-equipped cowboy of the old times had acquired and kept at his command what appeared to be the entire resources of Anglo-Saxon speech that could be worked into phases of denunciation—and they are not few in number; and when he intermingled with these an assortment of picturesque and glowing Spanish expletives and terms of approbrium, as he frequently did, the earth trembled.

But he also had vocal resources other and quite different from those of profanity for use in his rough business. Often at night when his cattle became restive under the mutterings of a coming storm, or uneasy from some unseen cause, or from tthe darkness of an overclouded sky, and even when on stampede, he would sing to them. The sound of the human voice in melody, however rude this might have been, usually had, under such circumstances, a soothing, assuring, and quieting effect upon the half-wild, apprehensive beasts. It is not worth while to discuss here the whys and wherefores of it, but it had such an effect. The cowboy made no pretensions to an elaborate *repertoire*. When an occasion arose for doing so, he sang, or tried to sing, such songs as he happened to know as well as he could. Usually he knew some "church-tunes"—lingering reminiscences of his boyhood away off somewhere toward sunrise, for as a cowboy he seldom even saw a church from afar, to say nothing of going inside of one. Sometimes he recalled the words or a part of them that went with these tunes, and used them to the best advantage. The music of "Old Hundred," and the music and words of "I Would Not Live Alway" were favorites on the range in times of threatened trouble.

But oftener the cowboy improvised words for these and other church-tunes, or adapted to them those of some doggerel song he knew—it was all the same to him; the cattle were affected by the music, not by the words, and to give them the music was what he was trying to do. But occasionally among these men an exquisite voice was heard, and when one of these was raised the restless cattle listened to the most real of music. Still, the typical old-time cowboy hardly could be called a singing man—there was too much strenuousness in his life for that, and so it was not very often that vocal music, or any other kind, for that matter, was heard in a cowcamp or at ranch headquarters.

It happened sometimes that the curiosity of range-stock became aroused by the singing of men at night, and the animals would draw and look on as well as listen. The French missionary, the Abbé Domenech, from whose book we have quoted in a former part of this volume, tells as follows of an early incident of this kind that occurred in 1849 while he was on one of his journeys over the valley of the Colorado River of Texas:

"It was our last night for sleeping on the plain, and this idea heightened our good humor. Pipes were lighted, conversation became animated, we wrapped our cloaks about us, looked up to the heavens, and sang in concert such as memory recalled of the hymns and melodies which had been familiar to us in our childhood. At two o'clock in the morning we ceased singing, * * * ; but what was our surprise on finding that we were surrounded by Americans, Irishmen, and Mexicans, who had drawn near to hear us sing; behind them we saw a regular troop of horses and oxen [cattle], forming a circle around us, having also no doubt been attracted by our singing."

As we have remarked heretofore, railroads and wire fences brought to an end the business, the rough life, and the stormy career of the old-time cowboy. Before 1890 the great cattle-trails had ceased to be cattle-trails, and grass was reclaiming their ways. The former tumultuous cowtowns had become mere way-station shipping-points with competitors every few miles along the railroads, and some of them had entered upon the decline that afterward reduced them to the dimensions of hamlets. Everywhere the range was being divided up into pasture-lots, enclosed by wire fences, in which gentler kinds of cattle, new to the country, quietly were grazing. For the old-time cowboy of the

A View on the Range.
(*From a Photograph.*)

trail and the open-range the beginning of the end was at hand.

His successors in the cattle business in the West keep up some of the customs and traditions of the old life. With most of them the dress is much the same, barring the rather frequent appearance of the white shirt. They ride cow-ponies—and do it well—and use about the same kind of saddle, though the rope and saddle-pommel are not put to so many uses now. Sometimes an outlying village in the ranch country is stirred up a little by a bunch of them, but these affairs are mild echoes of what used to be done, and, like the old practice of carrying a big revolver all the time and everywhere, this has fallen into much disfavor. In some parts of Wyoming and of Montana, and more in Arizona, the departure from the old ways has not moved quite so far, and there only are lingering semblances to these yet to be seen. But broadly speaking, life on the western cattle-ranches now is, as we have mentioned in passing, much nearer like that on a great well-managed farm than that of the old days when the range was open and "free."

Mr. Hough concludes his exquisitely told "Story of the Cowboy"—the old-time cowboy, a story written in 1896, that every reader of these pages may peruse with pleasure and profit, with the following:

"Singularly enough, at the time of the writing of these lines, there is in progress in a city in western Nebraska a great 'irrigation fair,' the first of its kind in the history of that part of the country. This fair exploits the possibilities of the soil when under irrigation. Thousands of people have come together there, among these many Indians and cowboys and old-time men of the plains. In faint imitation of the days of the past, the town is run 'wide open.' It is reported that the scenes of '69 and '70 are repeated. The cowboys are riding their horses into the saloons as they did in the days of the early drives. It is sought to revive the spirit of that old West, which is really dead beyond the reach of all our lamentations. Do many pause to consider how dramatic a scene this really is, this irrigation fair, at which the cowboy is asked to attend as a curiosity, as an attraction? Does he himself know what it is that they are asking him to do? They ask him to disport himself in a Titanic shadow-dance, and to close his play by blowing into its final flare the dwindling flame of his own candle.

"The West has changed. The old days are gone. The house-dog sits on the hill where yesterday the coyote sang. The fences are short and small, and within them grow green things instead of gray. There are many smokes now rising over prairie, and they are wide and black instead of thin and blue.

"As we look out in the evening light from where we stand, we may see the long shining parallels of the iron trail reaching out into the sunset. A little busy town lies near, flanked with fields of grain ready for the harvesting. There are cattle; but not those of 'deformed aspect' which Coronado saw when he walked across this country in the gray of other days, but sleek, round beasts, which stand deep in crops their ancestors never saw. In the little town is the hurry and bustle of modern life, even here, upon the extreme edge of the well-settled lands. For this is in the West, or what is now known as the West. It is far out upon what may now, as well as any place, be called the frontier, though really the frontier is gone. Guarding its ghost, watching over its grave, here stands a little army post, once one of the pillars, now one of the monuments of the West.

"The routine of the uncomplaining men who make the army goes on here still, as it does all over the land. One has seen the forming of troops to-day, the over there upon the parade ground. As evening comes he can hear the song of the trumpets, music to tingle in his hair. As the sun drops to the edge of the plains there comes the boom of a cannon at the fort, and fluttering down its staff falls the flag which waves over East and West and South and North alike, alike over the present and the past.

"Out from the little 'settlement' in the dusk of the evening, always being toward where the sun is sinking, rides a figure we should know. He threads the little lane among the fences, following the guidance of hands other than his own, a thing he would once have scorned to do. He rides as lightly and as easily as ever, sitting erect and jaunty in the saddle, his reins held high and loose in the hand whose fingers turn up daintily, his whole body free yet firm in the saddle with the seat of the perfect horseman. His hat still sweeps up and back in careless freedom of fashion. It is dusk, and we may not see his trappings. Let us hope his belt is still about his waist, his spurs still jingling as he rides. His pony is the same or much the same as when we saw it many years ago coming up the street of a very different town. It trots steadily forward, with the easy movement of the animal accustomed to long distances. The two, man and horse, show up strongly in the unreal light of evening on the plains. They seem to rise and move strangely as one looks, seem to grow strangely large and indistinct. Yet they melt and soften and so define; and at length, as the red sun sinks quite to the level of the earth, the figures of both show plainly and with no touch of harshness upon the western sky.

"The cowboy as he rides on, jaunty, erect, virile, strong, with his eye fixed perhaps on the ridge miles away, from which presently there may shine a small red light to hold his gaze, now looks about him at the buildings of the little town. As the boom of the cannon comes, and the flag drops fluttering down to sleep, he rises in his stirrups and waves his hat to the flag. Then toward the edge, out into the evening, he rides on. The dust of his riding mingles with the dusk of night. We cannot see which is the one or the other. We can only hear the hoof-beats passing, boldly and steadily still, but growing fainter, fainter, and more faint."

Sloanhurst.

It is fortunate for America that the underlying principle actuating citizens of the republic has been an unconquerable determination to advance. Not all the fires of opposition or the barriers reared by ignorance have been able to repress their onward march. The marvels of attainment in every department of activity wrought upon the soil of America surpass all records of all other parts of the world. Since the dawn of history, no country of the globe has equaled the success of the United States in material advancement. This favored country easily ranks as one of the world's greatest benefactors, whether considered from the standpoint of national achievement or in number and importance of individual accomplishments. The result is as sure as destiny—the United States is assuming a position, rightfully gained, as the arbiter of civilization.

W. W. SLOAN, JR.

A visit to the homes of leading live-stock men, a study of the methods that have been introduced, and a comparison with methods in vogue even during the generation preceding the one now in charge, cannot fail to awaken sentiments of profound wonder and gratification. In this great historical work, as never before, are presented the tremendous strides made in one important branch of industry. When it is considered that every other branch of industry—and there are hundreds of them—has been thrilled by the same magnetic impulse of modern development, then it is that the student of civilization exclaims, "I am proud to be a man! To my awakened vision it is clear that there are no limitations to the progress of humanity except the limitations man himself rears!"

Near central Texas, five miles south of Fort Worth, located in a spot which possesses every desirable advantage for a modern live-stock ranch, is the home of W. W. Sloan, Jr. This beautiful farm and ranch has been named by its owner "Sloanhurst." From the home of Mr. Sloan, occupying a commanding elevation overlooking the surrounding country, a farming region of striking beauty is presented to view. Here, in the summer season, are to be seen waving fields of grain, rich meadow and woodlands, the shining surface of a stream which flows through Sloanhurst, and in the distance the locomotive speeding over the prairie, drawing cars heavily loaded at the factories of the East and North to meet the steadily growing demands of the Southwest. In all directions are to be witnessed unmistakable evidences of progress; the farmers of the region appear happy and prosperous, and it is evident, even upon a cursory glance, that the location, within easy access by gravel road of the principal railway center of Texas and upon soil capable of producing any class of food required by live stock, is one which will be heard from as the years pass. The favorable climatic conditions—mild winters, long summers, and entire absence of malaria—can scarcely be surpassed; and nearness to market is a feature of special value to every producer.

After an extensive tour of the United States, Mr. Sloan selected the region of Fort Worth as the most promising center for the location of a model hog ranch. It is his ambition to make Sloanhurst the greatest ranch for the production of pure-bred Poland China stock to be found in the United States, if not in the world. The ranch comprises 400 acres, and tests made by Mr. Sloan indicate that here he can produce and develop an animal that cannot fail to become the pride of the hog-raisers of Texas.

It is a great ambition that actuates the young man—born in New York State and reared amidst every advantage of education—to found in Texas a hog ranch from which is to go forth an influence that will add both dignity and profit to a branch of the live-stock business that has been sadly overlooked or neglected in the Southwest. In one sense Mr. Sloan is a missionary, and certainly he cannot fail to be a benefactor. He is a persistent advocate of the improvement of breed as the salvation of hog-raising, and he believes that, as the farmers recognize this fact, they will adopt the principle which years ago became the policy of the Texas cattle-raisers; and what has been the result? The Texas steer is recognized as the equal of any steer in the world, tested by the acknowledged standards of quality, form, and weight.

"It is a great step from the Texas Longhorn to the beautiful cattle we now see upon the plains," said Mr. Sloan in the course of an interesting informal talk, "and the step is equally as great from the razor-back hog to the standard hog now being delivered at the packing-houses. But there are thousands of hog-raisers who still hold to the opinion that anything is good enough for a hog. Thousands of men yet hold that fat is the main object in the growth of the hog, and the more the hog wallows in the mud and rustles for his food, the better is he off.

"This is not the idea of the modern hog-raiser," said Mr. Sloan. "The modern hog-raiser aims to produce an animal weighing, say, 225 or 250 pounds, with a moderate amount of fat and a goodly quantity of lean meat. This is the hog that brings the high price. The demand of consumers is for the bacon hog, and the bacon hog is not the fat hog. He is marketed at six or seven months, and belongs to the same class as the baby beef, which tops the market. The advanced idea is to produce a high-graed hog at 6 months that will weigh at least 230 pounds. It saves time, saves food, and the money can be turned twice in a year. The hog marketed in six months runs less risk from diseases; his flesh is more tender and therefore more desirable, and the early hog is also a scientific proposition. Many breeders will not agree with me; but the world moves, old methods are giving way, and even the once-despised hog is coming to his lost estate. The time is rapidly approaching when the rearing of hogs under the filthy and unsanitary conditions that have prevailed will not be permitted, and the hog will be recognized as a respectable animal, worthy of the same care and attention paid other profit-making animals of the farm. This is inevitable as a result of higher breeding and increased value of the individual.

"A study of the possibilities of various parts of the country will lead any investigator to the opinion that the State of Texas presents the greatest field of any State of the Union for the growth of the hog industry. All the pasturage and grains necessary for the rapid development of the hog can be grown in this State, and the climate is better adapted to hog-raising than that of many other States. We practically have pasturage the year round, and that, in itself, is of great importance to the industry, although not generally recognized in Texas. When it is, there will be a new impulse to hog-raising. While Indian corn is an important element in fattening the hog, it is true that substitutes for corn can be provided, and it is almost possible to deliver hogs to the market directly from the alfalfa pasture. Texas is very much freer from swine plague and hog cholera than many States further north, and, upon the whole, there is no reason why the hog industry of Texas, within a few years, may not assume very large proportions. It is only a matter of education.

"Alfalfa is highly important in connection with a hog ranch. I would prefer alfalfa first, last, and all the time, as compared with any other pasture for hogs. Any well-drained, rich loam land will raise alfalfa. Sorghum is one of the old stand-bys for summer pasture, but a good substitute for alfalfa and sorghum is Bermuda grass. This is a permanent pasture and grows anywhere in Texas. It is a fine drouth-resisting pasture, and while not as rich or nutritious as alfalfa it is always a good substitute. No man is obliged to depend upon Indian corn as food for hogs in Texas. A study of the food question soon removes all objections, so far as the food is concerned, and a man may then see his way clearly to embarking in the business. The fact is that the man who places his dependence upon Indian corn need not expect success. In good corn years he will raise hogs; but no corn, no hogs. A knowledge of other foods is the road to success in hog-raising."

Mr. Sloan has studied the problem of producing the hog that will weigh the most in the shortest time with the smallest amount of food. This, in his opinion, is the ideal hog, as it necessarily implies a high-grade hog. His object is to produce the greatest percentage of lean meat, and to effect this result he aims to feed the hog with food that has a tendency to make lean meat—firm flesh instead of fat.

"The foods that will produce the lean meat," said he, "are those that are rich in protein. Roughly speaking—oats, bran, shorts, and all kinds of green pastures. The green pasture is especially rich in muscle-making and bone-building properties. It is the custom of the most progressive to let the hog make the major portion of his growth on green pastures combined with grain, and finish off for the market on corn. This is the pork hog. He is given slops and corn and picks up the remainder of his sustenance from the pastures. In order to produce the lean meat, for which the demand is constantly growing, I would place the pigs on green pastures—preferably alfalfa—as soon as the pigs are weaned. Alfalfa should, at all stages, form the basis of their growth. I should feed ground oats and shorts, but if oats are selling at 50 or 55 cents, the ration may be reduced to shorts, some grain, such as Kaffir corn and Milo maize, and green pasture. This diet I would continue until the pigs are 3½ months old, then I would replace the shorts with bran, as the bran is too harsh for young pigs, but it is a good meat-producer, later on, when fed in connection with oats. A little skimmed milk each day, up to the time the pigs are 3 or 4 months old, will assist in the development. After the pigs are 4 months old, I would discontinue the use of skimmed milk, as it is best utilized as food for young pigs. Of course, any kind of milk is good for pigs if you have it, but the skimmed milk is a good developer of the muscular system of young pigs, as it is practically a protein food.

"From the time a pig is 4 months old, and even before that time, it is advisable daily to give him an ear of corn on the cob. It helps out the ration of food, is a change in diet, and gives exercise for the teeth. It is preferable to deliver the corn on the cob, as the pig must chew it and cannot swallow it so quickly as the shelled corn. Right here I will say that the man who aims at success in hog-raising must not lose sight of the importance of developing a carrying capacity in the stomach of the animal, as the animal is expected to make the major portion of his growth upon the pasture. If the hog is ever to be thoroughly developed, he must have stomach capacity; for that reason he should be fed bulky food—something to distend his stomach. Roughly speaking, shorts and bran meet this requirement. Corn, as we all know, is one of the most concentrated foods in the world. But the greater the variety of wholesome foods, the better it is for the hog. As the time approaches for maturing the animal, I would increase the quantity of corn, but would not, by any means, put the hog on a strictly corn diet. The reason for increasing the corn ration is to round out the animal and cause him to present a better appearance. I would expect to produce a smooth, well-rounded animal by the use of the protein diet in a period around six months, and have made tests when the hog put on two and eight-tenths pounds weight a day for sixteen consecutive days. I have no doubt that with good judgment in feeding, if the stock is of good grade, hogs weighing 300 pounds can be marketed in eight months; a weight of 230 pounds in six months on a protein diet is conservative. This is a practical-purpose hog, and the claim is not extravagant."

A point not to be overlooked, as explained by Mr. Sloan, is that, as the hog becomes older and heavier, the percentage of cost for additional weight rapidly increases. To add a pound of weight to a young hog costs much less than to add the same weight to a hog approaching the age of maturity. In a large herd the effect of this principle appears overwhelmingly in favor of marketing the six-months old hog—the "baby" hog. If a hog eats only what his system actually requires, he would show no increase of weight. The profit of hog-raising, estimated upon tables prepared by Mr. Sloan, depends mainly upon the market price and the cost of food. The pasture, however, is an element of high importance in reducing the cost of food, and cheap pasture may enable the raiser to pay a high price for grain. In many cases it is best for the hog-raiser to produce his own grain, as in the case where the haulage is an item.

"There is no doubt," said Mr. Sloan, "that the best results are secured from raising good stock; many hog-raisers came to that conclusion years ago, and it is shown in other branches of live stock in a marked degree. The particular family I selected was the Poland China. It has been demonstrated that the Poland China is a good feeder, that he quickly responds to good treatment, and will stand confinement better than some other families. The modern methods do not require a hog to be a rustler. The Texas razor-back was the finest rustler the world has ever known, but there his capacity ended. We don't want a hog that walks his legs off, but we do want the best possible machine for transmuting food into meat; we also want a machine that will stand forcing, and the Poland China meets the requirements. On account of the bright sunlight of Texas, I much prefer in this State the dark color of the Poland China to the white hog."

As to the principles of cleanliness that should prevail, Mr. Sloan is very emphatic. He provides clean quarters, pure water, and pens are so built as to give a constant supply of pure air. The health of the hog is constantly kept in view, and diseases are thus avoided and results made more certain. The first consideration observed by Mr. Sloan, is not to allow too many hogs to be placed in one enclosure; over-crowding he considers one of the greatest incentives to disease. He makes no provision for the hog to wallow, as the mud hardens on the skin and prevents perspiration and the passage of air through the pores of the skin; thus are impurities of the system prevented from escaping through their natural channel and disease is engendered. Mr. Sloan advises the ringing of the noses of the hogs, so they cannot tear up and spoil the pasture and spend strength that should be going into flesh. The hogs should have access to salt, wood ashes, and charcoal at all times, and pens should be provided for shade in summer or protection from the wind in winter; protection on the north and west sides may be sufficient, but Mr. Sloan would never make use of a wholly enclosed pen, as he is an advocate of admitting sunlight into the hog-pen. Sunlight is one of the greatest destroyers of disease germs. The hog is not to be pampered, but is to be reasonably protected. When possible, the corner of a fence is a good location for a pen, provided the animal is not obliged to sleep in a draught.

Although Mr. Sloan has devoted a great deal of study to the practical development of the hog for market purposes, his chief attention is in founding a great breeding establishment, where breeding-stock of the most desirable grade may be secured by patrons throughout the Southwest. Being near the farms and ranches where the hog crop is to be reared, Sloanhurst is a natural supply depot. Mr. Sloan is a member of the Texas Swine Breeders' Association and a stockholder of the Ohio Poland China Record Company, incorporating all that is best with the most successful hog-breeders of the country. Mr. Sloan is a pioneer in Texas along the lines he advocates. The facilities at Sloanhurst are not surpassed by any similar establishment west of the Mississippi River, and will be rapidly increased as the business develops. Over 3,000 feet of pipe have been laid, and a system of pens and pastures is in use that is a surprise to visitors. The plant is provided with a 12,700 gallon combination tank, tower, and mill, the water-level of the tank being forty-two feet above the ground surface. The tank is supplied from an artesian well, the water of which contains iron and sulphur and therefore is most healthful for live stock. The plant is provided with a self-feeding 2,000-bushel feed house, a feed mill with a capacity of forty bushels per day, a Fairbanks' combination stock and farm wagon scale (capacity four tons, graduated to half-pound notches), and a wash rack in which hogs can be thoroughly washed at the rate of forty matured hogs per hour. The pasture consists of alfalfa, hairy vetch, macaroni wheat, turf oats, etc. Here may be seen every provision for the development of the hog under the most favorable circumstances, and Mr. Sloan has demonstrated that hogs may be grown upon a scientific basis in Texas with highly gratifying results. His leading object is to distribute from Sloanhurst a breed of hogs perfectly adapted to Texas conditions.

"Profit" (54,445), the present head of the Sloanhurst herd, is pronounced by judges the finest boar ever brought to Texas. He is a grandson on his sire's side of Perfect Perfection and on his dam's side of Chief Tecumseh Second, thus giving him the quintessence of royal blood. This magnificent animal weighs 615 pounds in breeding condition and has a chest girth of 6 feet 2 inches. In show form, Profit would weigh much more.

Over fifty years ago William W. Sloan, the father of W. W. Sloan, Jr., arrived in the United States from Ireland. He was a boy of 17, and his cash capital on reaching Buffalo consisted of 13 cents. At the time of his death in 1901 Mr. Sloan had attained a position as one of the most prominent men of Buffalo and one of the most successful financiers western New York has known. As an electric-light man and banker, he attained an enviable place, and the general expression of regret at his death was lasting evidence of his personal worth. Mrs. Sloan, formerly Miss Sarah Sims, daughter of Elias Sims, a widely known Cleveland dredging man, survives her husband.

W. W. Sloan, Jr., was born in Buffalo, March 19, 1879, and, although only 24 years of age at the time of this writing, he has made a remarkable start in a special line to which his attention was attracted years ago, and which he expects to make his life work. Unlike the great majority of young men who embark in the live-stock business, Mr. Sloan was reared in the midst of luxury. He completed his scholastic training in the classic halls of Harvard College, but impaired health called for a change of climate, and it was during a stay in the health-giving atmosphere of Texas that he decided to take up his permanent abode in the Southwest and identify himself with what he regarded as the most promising industry of Texas. Ample financial resources have enabled him to proceed with his plans much more rapidly than would have been possible under less favorable circumstances, and the enthusiasm and sound judgment he has evinced in his undertaking are promising auguries of the future. Visitors at Sloanhurst are delighted to meet with the cordial reception extended by the gentlemanly proprietor. On the 20th of June, 1900, Mr. Sloan was married to Miss Rose Lincoln Edwards, of Hyde Park, Massachusetts, and the presence and encouragement of his wife are a constant incentive for the complete success of "Sloanhurst."

Theodore Roosevelt, Ranchman and President of the United States.

The most picturesque episode in the remarkable career of Theodore Roosevelt, President of the United States, was that of his life as a ranchman in the Northwest during several years of the middle '80's. His experience on the range and elsewhere in the Great West added largely to his knowledge and to his admiration of his fellow-countrymen, and from it he drew the inspiration and obtained the material for those of his books in which he so vividly portrays scenes, tragedies, characteristics, comedies, and incidents of the "cowtown," the ranch, the range, and the hunting-trail.

In 1884, after having worked through part of the season as a cowboy, Mr. Roosevelt, beginning with 500 head of cattle, established himself as a range-stockman on the Little Missouri River in the western part of what is now the State of North Dakota, but then a portion of the Territory of Dakota; his location being north of what then was the little hamlet of Medora—his nearest "town"—on the Little Missouri, where the Northern Pacific Railroad crosses that stream, and about twenty-five miles east of the Montana line. It was a new country with a very sparse population, which later must have decreased, for in 1890 the North Dakota county of Billings, of 6,150 square miles, and of which Medora is, as it was then, the county seat, was credited with but 170 people; and in 1900 it had only 975. Whatever it may be now, the Medora of 1884 was a small huddle of rickety structures fronting on a single street, and sheltering a community made up of the good, the bad, and the indifferent. The place had a full share of saloons, "shoot-ups," gamblers, "bad men," affrays, and all the rest, the violence of the aggregation occasionally being tempered by a little judicious work on the part of vigilance committees.

To a man fresh from metropolitan life, and who had come almost directly from the great National Convention that had nominated James G. Blaine for the Presidency, the differences in scenes and conditions were about as great as it would be possible to make or to find.

Mr. Roosevelt had two ranches near each other on the Little Missouri, one of which was known as the "Elkhorn Ranch," and the other as the "Chimney Butte"; the former being his "home ranch." Of this one he says in his "Ranch Life and the Hunting Trail," published in 1888:

"My home ranch lies on both sides of the Little Missouri, the nearest ranchman above me being about twelve, and the nearest below me about ten, miles distant. The general course of the stream here is northerly, but, while flowing through my ranch, it takes a great westerly reach of some three miles, walled in, as always, between chains of steep, high bluffs half a mile or more apart. The stream twists down through the valley in long sweeps, leaving oval wooded bottoms, first on one side and then on the other; and in an open glade among the thick-growing timber stands the long, low house of hewn logs.

"Just in front of the ranch veranda is a line of old cottonwoods that shade it during the fierce heats of summer, rendering it always cool and pleasant. But a few feet beyond these trees comes the cut-off bank of the river, through whose broad, sandy bed the shallow stream winds as if lost, except when a freshet fills it from brim to brim with foaming yellow water. The bluffs that wall in the river valley curve back in seimcircles, arising from its alluvial bottom generally as abrupt cliffs, but often as steep, grassy slopes that lead up to great level plateaus; and the line is broken every mile or two by the entrance of a *coulee*, or dry creek, whose head branches may be twenty miles back. Above us, where the river comes round the valley is very

Theodore Roosevelt

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narrow, and the high buttes bounding it rise, sheer and barren, into scalloped hill-peaks and naked knife-blade ridges.

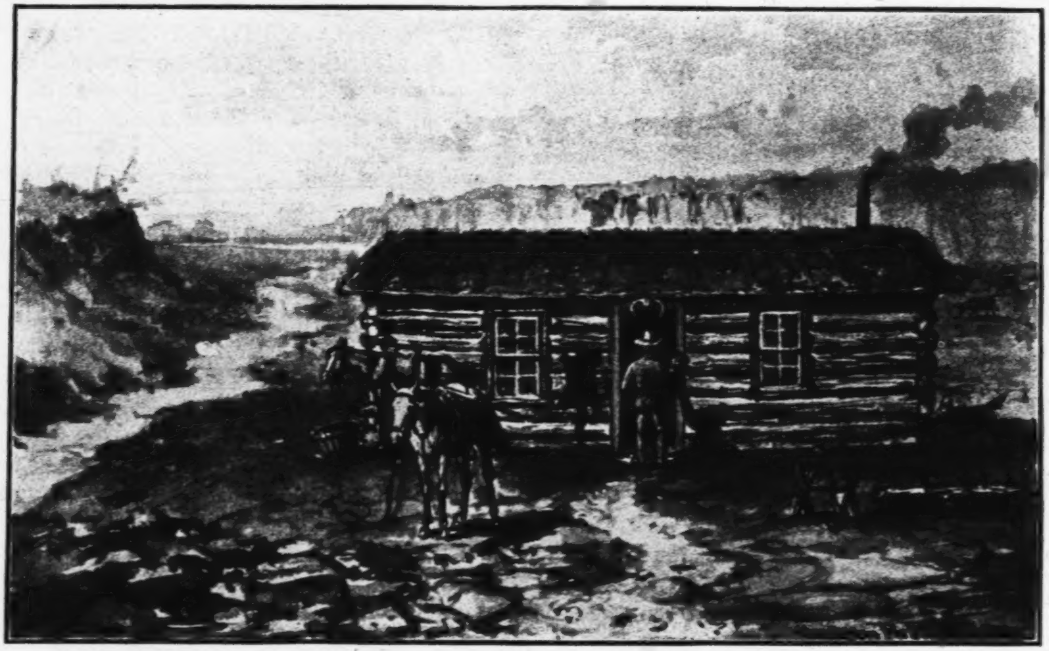
"The other buildings stand in the same open glade with the ranch-house, the dense growth of cottonwoods and matted, thorny underbrush making a wall all about, through which we have chopped our wagon roads and trodden out our bridle-paths. The cattle have now trampled down this brush a little, but deer still lie in it, only a couple of hundred yards from the house; and from the door sometimes in the evening one can see them peer out into the open or make their way down, timidly and cautiously, to drink at the river. The stable, sheds, and other outbuildings, with the hayricks and the pens for such cattle as we bring in during winter, are near the house; the patch of fenced garden land is on the edge of the woods; and near the middle of the glade stands the high, circular horse-corral, with a snubbing-post in the center, and a wing built out from one side of the gate entrance, so that the saddle-band can be driven in without trouble. As it is very hard to work cattle where there is much brush, the larger cow-corral is some four miles off on an open bottom.

"A ranchman's life is certainly a very pleasant one, albeit generally varied with plenty of hardship and anxiety. Although occasionally he passes days of severe toil,—for example, if he goes on the round-up he works as hard as any of his men,—yet he no longer has to undergo the monotonous drudgery attendant upon the tasks of the cowboy or of the apprentice in the business. His fare is simple; but, if he chooses, it is good enough. Many ranches are provided with nothing at all but salt pork, canned goods, and bread; indeed, it is a curious fact that in traveling through the cow country it is often impossible to get any milk or butter; but this is only because the owners or managers are too lazy to take enough trouble to insure their own comfort. We ourselves always keep up two or three cows, choosing such as are naturally tame, and so we invariably have plenty of milk and, when there is time for churning, a good deal of butter. We also keep hens, which, in spite of the damaging inroads of the hawks, bob-cats, and foxes, supply us with eggs, and in time of need, when our rifles have failed to keep us in game, with stewed, roast, or fried chicken also. From our garden we get potatoes, and unless drought, frost, or grasshoppers interfere (which they do about every second year), other vegetables as well. For fresh meat we depend chiefly upon our prowess as hunters."

It is hardly necessary to mention that Mr. Roosevelt was neither a holiday nor a fair-weather, summer-afternoon, ranchman, for his temperament is not, as everybody now knows, such as would permit him to be that kind of man in anything that he might undertake to do. Through example, as well as by precept, he has become in popular esteem the personification of all that is implied by the word "forceful," which, however, has stood for one of his prominent characteristics from the time when he entered Harvard College; but this apparent impetuosity always has been under the control of good judgment and real conservatism. He engaged in the ranch business in earnest and for what he could make it produce, and therefore he rode the range, went on the round-up, and when necessary, as it often was, he pitched in and worked as long and as hard as any of his men. Of some of his experiences on the round-up in helping to handle a stampeding herd of cattle, he relates in his "Ranch Life and the Hunting Trail" the following:

" * * * Once stopped, they may break again, and possibly divide up, one cowboy, perhaps, following each band. I have known six such stops and renewed stampedes to take place in one night, the cowboy staying with his ever-diminishing herd until daybreak, when he managed to get them under control again, and, by careful humoring of his jaded, staggering horse, finally brought those that were left back to the camp, several miles distant. The riding in these night stampedes is wild and dangerous to a degree, especially if the man gets caught in the rush of the beasts. It also frequently necessitates an immense amount of work in collecting the scattered animals. On one such occasion a small party of us were thirty-six hours in the saddle, dismounting only to change horses or to eat. We were almost worn out at the end of the time; but it must be kept in mind that for a long spell of such work a stock-saddle is far less tiring than the ordinary eastern or English one, and in every way superior to it.

"By very hard riding such a stampede may sometimes be prevented. Once we were bringing a thousand head of young cattle down to my lower ranch, and as the river was high were obliged to take the inland trail. The third night we were forced to make a dry camp, the cattle having had no water since the morning. Nevertheless, we got them bedded down without difficulty, and one of the cowboys and myself stood first guard. But very soon after nightfall, when the darkness had become complete, the thirsty brutes of one accord got on their feet and tried to break out. The only salvation was to keep them close together, as, if they once got scattered, we knew they could never be gathered; so I kept on one side and the cowboy on the other, and never in my life did I ride so hard. In the darkness I could but dimly see the shadowy outlines of the herd, as with whip and spurs I ran the pony along its edge, turning back the beasts at one point barely in time to wheel and keep them in at another. The ground was cut up by numerous little gullies, and each of us got several falls, horses and riders turning complete somersaults. We were dripping with sweat, and our ponies quivering and trembling like quaking aspens, when, after an hour of the most violent exertion, we finally got the herd quieted again.



Headquarters of Theodore Roosevelt on his Montana Ranch.

"On another occasion while with the round-up we were spared an excessively unpleasant night only because there happened to be two or three great corrals not more than a mile or so away. All day long it had been raining heavily, and we were well drenched; but towards evening it lulled a little, and the day herd, a very large one, of some two thousand head, was gathered on an open bottom. We had turned the horses loose, and in our oilskin slickers cowered, soaked, and comfortless, under the lee of the wagon, to take a meal of damp bread and lukewarm tea, the sizzling embers of the fire having about given up the ghost after a fruitless struggle with the steady downpour. Suddenly the wind began to come in quick, sharp gusts, and soon a regular blizzard was blowing, driving the rain in stinging level sheets before it. Just as we were preparing to turn into bed, with the certainty of a night of more or less chilly misery ahead of us, one of my men, an iron-faced personage, whom no one would ever have dreamed had a weakness for poetry, looked towards the plain where the cattle were, and remarked, 'I guess there's "racing and chasing on Cannobie Lea" now, sure.' Following his gaze, I saw that the cattle had begun to drift before the storm, the night guards being evidently unable to cope with them, while at the other wagons riders were saddling in hot haste and spurring off to their help through the blinding rain. Some of us at once ran out to our own saddle-band. All of the ponies were standing huddled together, with their heads down and their tails to the wind. They were wild and restive enough usually; but the storm had cowed them, and we were able to catch them without either rope or halter. We made quick work of saddling; and the second each man was ready, away we loped through the dusk, splashing and slipping in the pools of water that studded the muddy plain. Most of the riders were already out when we arrived. The cattle were gathered in a compact, wedge-shaped, or rather fan-shaped, mass, with their tails to the wind—that is, towards the thin end of the wedge or fan. In front of this fan-shaped mass of frightened, maddened beasts was a long line of cowboys, each muffled in his slicker and with his broad hat pulled down over his eyes, to shield him from the pelting rain. When the cattle were quiet for a moment every horseman at once turned round with his back to the wind, and the whole line stood as motionless as so many sentries. Then, if the cattle began to spread out and overlap at the ends, or made a rush and broke through at one part of the lines, there would be a change into wild activity. The men, shouting and swaying in their saddles, darted to and fro with reckless speed, utterly heedless of danger, now racing to the threatened point, now checking and wheeling their horses so sharply as to bring them square on their haunches, or even throw them flat down, while the hoofs plowed long furrows in the slippery soil, until, after some minutes of this mad galloping hither and thither, the herd, having drifted a hundred yards or so, would be once more brought up standing. We always had to let them drift a little to prevent their spreading out too much. The din of the thunder was terrific, peal followed peal until they mingled in one continuous, rumbling roar; and at every thunder-clap louder than its fellows the cattle would try to break away. Darkness had set in, but each flash of lightning showed us a dense array of tossing horns and staring eyes. It grew always harder to hold in the herd; but the drift took us along to the corrals already spoken of, whose entrances were luckily to windward. As soon as we reached the first we cut off part of the herd, and turned it within; and after again doing this with the second, we were able to put all the remaining animals into the third. The instant the cattle were housed five-sixths of the horsemen started back at full speed for the wagons; the rest of us barely waited to put up the bars and make the corrals secure before galloping after them. We had to ride right in the teeth of the driving storm; and once at the wagons we made small delay in crawling under our blankets, damp though the latter were, for we were ourselves far too wet, stiff, and cold not to hail with grateful welcome any kind of shelter from the wind and the rain."

Mr. Roosevelt did not shirk line-riding in midwinter whenever there was occasion for him to take a hand in that kind of work; and of the conditions under which it usually had to be done in the North he says:

"The great white country wrapped in the powdery snow-drift seems like another land; and the familiar landmarks are so changed that a man must be careful lest he lose his way, for the discomfort of a night in the open during such weather is very great indeed. When the sun is out the glare from the endless white stretches dazzles the eyes; and if the gray snow-clouds hang low and only let a pale, wan light struggle through, the lonely wastes become fairly appalling in their desolation. For hour after hour a man may go on and see no sign of life, except perhaps, a big white owl sweeping noiselessly by, so that in the dark it looks like a snow-wreath; the cold gradually chilling the rider to the bones, as he draws his fur cap tight over his ears and muffles his face in the huge collar of his wolf-skin coat, and making the shaggy little steed drop head and tail as it picks its way over the frozen soil. There are few moments more pleasant than the home-coming, when, in the gathering darkness, after crossing the last chain of ice-covered buttes, or after coming around the last turn in the wind-swept valley, we see, through the leafless trees, or across the frozen river, the red gleam of the firelight as it shines through the ranch windows and flickers over the trunks of the cottonwoods outside, warming a man's blood by the mere hint of the warmth awaiting him within."

Mr. Roosevelt, in his "Hunting Trips of a Ranchman," frankly admits that he found the "bucking" bronco a beast not to his liking:

"All the [ranch] work is done on horseback, and the quantity of ponies is thus of necessity very great, some of the large outfits numbering them by hundreds; on my own ranch there are eighty. Most of them are small, wiry beasts, not very speedy, but with good bottoms, and able to pick up a living under the most adverse circumstances. There are usually a few large, fine horses kept for the special use of the ranchman or foremen. The best are those from Oregon; most of them come from Texas, and many are bought from the Indians. They are broken in a very rough manner, and many are in consequence vicious brutes, with the detestable habit of bucking. Of this habit I have a perfect dread, and, if I can help it, never get on a confirmed bucker. The horse puts his head down between his fore-feet, arches his back, and with stiff legs gives a succession of jarring jumps, often 'changing ends' as he does so. Even if a man can keep his seat, the performance gives about as uncomfortable a shaking up as can be imagined."

The strenuous practices of the bucker and of other refractory broncos evidently had left upon the mind of Mr. Roosevelt some impressions almost as painful as those that they had inflicted upon his body, for he returns to them again in his later book, "Ranch Life and the Hunting Trail," and gives us some particulars of the reasons why he had no great admiration for them:

"In riding these wild, vicious horses, and in careering over such very bad ground, especially at night, accidents are always occurring. A man who is merely an ordinary rider is certain to have a pretty hard time. On my first round-up I had a string of nine horses, four of them broncos, only broken to the extent of having each been saddled once or twice. One of them it was an impossibility to bridle or saddle single-handed; it was very difficult to get on or off him, and he was exceedingly nervous if a man moved his hands or feet; but he had no bad tricks. The second soon became perfectly quiet. The third turned out to be one of the worst buckers on the ranch: once when he bucked me off I managed to fall on a stone and broke a rib. The fourth had a still worse habit, for he would balk and then throw himself over backward: once, when I was not quick enough, he caught me and broke something in the point of my shoulder, so that it was some weeks before I could raise the arm freely. My hurts were far from serious, and did not interfere with my riding and working as usual through the round-up; but I was heartily glad when it ended, and ever since have religiously done my best to get none but gentle horses in my own string. However, everyone gets falls from or with his horse now and then in the cow country; and even my men, good riders though they are, are sometimes injured. One of them once broke his ankle; another a rib; another was on one occasion stunned, remaining unconscious for some hours; and yet another had certain of his horses buck under him so hard and long as finally to hurt his lungs and make him cough blood. Fatal accidents occur annually in almost every district, especially if there is much work to be done among stampeded cattle at night; but on my own ranch none of my men have ever been seriously hurt, though on one occasion a cowboy from another ranch, who was with my wagon, was killed, his horse falling and pitching him heavily on his head."

Of his relations with the men around him on the range, and with the rough and tough human element of the old-style cowtown, Mr. Roosevelt tells us in "Ranch Life and the Hunting Trail:"

"I have always been treated with the utmost courtesy by all cowboys, whether on the round-up or in camp; and the few real desperadoes I have seen were also perfectly polite. Indeed, I never was shot at maliciously but once. This was on an occasion when I had to pass the night in a little frontier hotel, where the bar-room occupied the whole lower floor, and was in consequence the place where everyone, drunk or sober, had to sit. My assailant was neither a cowboy nor a *bona fide* "bad man," but a broad-hatted ruffian of cheap and commonplace type, who had for the moment terrorized the other men in the bar-room, these being mostly sheep-herders and small grangers. The fact that I wore glasses, together with my evident desire to avoid a fight, apparently gave him the impression—a mistaken one—that I would not resent an injury."

His athletic training at Harvard, strengthened by his out-door life, had made Mr. Roosevelt a very handy man with his fists, and this enabled him to knock the broad-hatted shooter down and out before the latter had time to realize what was going to happen.

In another affair, in which three evil-doers figured to their discomfiture and eventually to their loss of liberty, Ranchman Roosevelt's management of the case was almost as prompt, equally effective, and altogether characteristic of the man. He had brought out a clinker-built row-boat for use at his home ranch chiefly as a ferry-boat in times of much water in the Little Missouri. One night in March three tough propos[illegible] who had been camping in an old shack about twenty miles up the river, having decided to leave the country before some lynching committee incapacitated them for doing so, passed down in a scow-boat that they had contrived to make; and as they went by Roosevelt's ranch-house they appropriated the clinker and took it in tow. These men—an Irishman, a German, and a half-breed Indian—were generally believed to be implicated in horse-stealing—that worst of frontier crimes—and in cattle-killing; and there had been some talk of using noosed ropes on them. Therefore, Roosevelt suspected them of having taken his boat, without which he and his men could not cross to that part of his range on the other side of the river when a freshet was on, and he resolved to pursue the pirates and to recover his property. Of a strong reason for doing so, aside for the value and utility of the stolen boat, he says in his "Ranch Life and the Hunting Trail":

" * * * In any wild country where the power of the law is little felt or heeded, and where everyone has to rely upon himself for protection, men soon get to feel that it is in the highest degree unwise to submit to any wrong without making an immediate and resolute effort to avenge it upon the wrong-doers, at no matter what cost of risk or trouble. To submit tamely and meekly to theft, or to any other injury, is to invite almost certain repetition of the offense, in a place where self-reliant hardihood and the ability to hold one's own under all circumstances rank as the first of virtues."

To follow the river bank on horses close enough to make sure of discovering the fugitives was impracticable, and therefore the avengers hurriedly built a flat-bottomed scow-boat in which to make the pursuit, and, with provisions for two weeks or so, a camping outfit, and their armament, Roosevelt and two of his men rowed and paddled away on their mission. The weather was cold and blizzardly and growing colder, and ice, as it had been for some time, was running thick in the river. While these conditions retarded the progress of the three pursuers, they retarded still more that of the fugitive three, who had two boats to manage; moreover, the latter, not expecting to be followed in such fashion, nor in any other very far, for the most part drifted along with the ice, and spent much of their time in camp.

In the afternoon of the third day, as the Roosevelt craft turned a sharp bend in the river its navigators saw ahead of them the stolen clinker and a scow-boat moored at the bank, and the smoke of a camp-fire curling up through the frosty air from a spot in the timber and undergrowth a short distance back. Surrounding the camp, as much as three could do it, the Roosevelt forces found that the only one of the fugitives present was the German, who surrendered instantly and unconditionally when he saw three rifles leveled at vital parts of his anatomy; his two comrades being off hunting. After hobbling the German hand and foot and leaving one of his men to keep the prisoner quiet, Roosevelt and the other man concealed themselves and awaited the return of the hunters. Presently these came in, unsuspecting, and walked into a situation in which there was absolutely no room for doubt as to who had the drop.

As things turned out, the capture proved to be the least of the captors' troubles. Mr. Roosevelt had resolved to hand the men over to justice, but in that bitterly cold night, to cord them tightly hand and foot probably would result in having their hands and feet freeze solid. So it was decided that the captors should take turns in standing guard over the prisoners with a heavy shot-gun loaded with buckshot, the guarded ones being made to lie together under a single buffalo robe with their boots off—the latter provision putting escape by running out of the question in a country where cactus awaited almost every footstep.

The fleet put out down stream next morning, taking along the assortment of plunder found with the captives; the Irishman being under Mr. Roosevelt's personal charge, while the other two were put in their scow-boat with but one paddle and a warning that upon their first movement toward escape they would be shot. For several hours fair headway was made, but late in the day the flotilla was stopped by an ice-jam that extended far down the river. During the next eight days the jam kept moving and stopping, the weather continued very cold, provisions were running low, there was no game in sight, and in all the time the prisoners had to be guarded as from the hour of their capture.

Finally, after having followed the jam about thirty miles, the party came to an outlying cow-camp, occupied by a solitary cowboy. Here Mr. Roosevelt decided to obtain a team, wagon, and driver, and take his prisoners overland to the town of Dickinson, the nearest "seat of justice," and about forty miles east of Medora; leaving his men to take the boats and their cargoes on down the river to the Big Missouri, and thence down to Mandan, when the ice moved out.

The cowboy, who was eager to assist, had neither team nor wagon, but knew of a granger ranchman about fifteen miles inland who had both. Mr. Roosevelt rode to the ranch on the cowboy's protesting bronco, and engaged the ranchman with his wagon and a team of wiry little mares for the journey to Dickinson; although the rancher was of the opinion that it would be just as well to hang the men where they were, and so save all further trouble. The next day the captives and their captors footed it from the river to the ranch, escorted by the hospitable and obliging cowboy on his turbulent bronco, and early in the morning of the day after, Mr. Roosevelt and his charges set out for Dickinson. Of his trying experience on the way he tells us as follows, in "Ranch Life and the Hunting Trail":

"The going was bad, and the little mares could only drag the wagon at a walk; so, though we drove during the daylight, it took us two days and a night to make the journey. It was a most desolate drive. The prairie had been burned the fall before, and was a mere black waste of blackened earth, and a cold, rainy mist lasted through out the two days. The only variety was where the road crossed the shallow headwaters of Knife and Green Rivers. Here the ice was high along the banks, and the wagon had to be taken to pieces to get it over. My three captives were unarmed, but as I was alone with them, except for the driver, of whom I knew nothing, I had to be doubly on my guard, and never let them come close to me. The little mares went so slowly, and the heavy road rendered any hope of escape by flogging up the horses so entirely out of the question, that I soon found the safest plan was to put the prisoners in the wagon and myself walk behind with the inevitable Winchester. Accordingly I trudged steadily the whole time behind the wagon through the ankle-deep mud. It was a gloomy walk. Hour after hour went by always the same, while I plodded along through the dreary landscape—hunger, cold, and fatigue struggled with a sense of dogged, weary resolution. At night, when we put up at the squalid hut of a frontier granger, the only habitation on our road, it was even worse. I did not dare to go to sleep, but making my three men get into the upper bunk, from which they could get out only with difficulty, I sat up with my back against the cabin-door and kept watch over them all night long. So, after thirty-six hours' sleeplessness, I was most heartily glad when we at last jolted into the long, straggling main street of Dickinson, and I was able to give my unwilling companions into the hands of the sheriff.

"Under the laws of Dakota I received my fees as a Deputy Sheriff for making the three arrests, and also mileage for the 300 odd miles gone over—a total of some fifty dollars."

The men finally were landed in the Territorial penitentiary, chiefly on account of having stolen the clinker-built boat, but partly because of a general presumption that that was the better place for them.

Mr. Roosevelt's career as a ranchman began after the general peace had been made with the Indians and the last roaming tribe had been placed on a reservation. Still, even in his time on the range, small parties of young Indians occasionally would sally forth from the reservations bent on mischief. In his book from which we have already so freely quoted, Mr. Roosevelt says concerning this and of another encounter he had with such a party:

"There is always danger in meeting a band of young bucks in lonely, uninhabited country—those that have barely reached manhood being the most truculent, insolent, and reckless. A man meeting such a party runs great risk of losing his horse, his rifle, and all else he has. This has happened quite frequently during the past few years to hunters or cowboys who have wandered into the debatable territory where our country borders on the Indian lands; and in at least one such instance, that took place three years ago, the unfortunate individual lost his life as well as his belongings. But a frontiersman of any experience can generally 'stand off' a smaller number of such assailants, unless he loses his nerve or is taken by surprise.

"My only adventure with Indians was of a very mild kind. It was in the course of a solitary trip to the north and east of our range, to what was then practically unknown country, although now containing many herds of cattle. One morning I had been traveling along the edges of the prairie, and about noon I rode Manitou [his favorite horse] up a slight rise and came out on a plateau that was perhaps half a mile broad. When near the middle, four or five Indians suddenly came up over the edge, directly in front of me. The second they saw me they whipped their guns out of their slings, started their horses into a run, and came on at full tilt, whooping and brandishing their weapons. I instantly reined up and dismounted. The level plain where we were was of all places the one on which such an onslaught could best be met. In any broken country, or where there is much cover, a white man is at a great disadvantage if pitted against such adepts in the art of hiding as Indians; while, on the other hand, the latter will rarely rush in on a foe who, even if overpowered in the end, will probably inflict severe loss on his assailants. The fury of an Indian charge, and the whoops by which it is accompanied, often scare horses so as to stampede them; but in Manitou I had perfect trust, and the old fellow stood as steady as a rock, merely cocking his ears and looking round at the noise. I waited until the Indians were a hundred yards off, and then threw up my rifle and drew a bead on the foremost. The effect was like magic. The whole party scattered out as wild pigeons or teal ducks sometimes do when shot at, and doubled back on their tracks, the men bending over alongside their horses. When some distance off they halted and gathered together to consult, and after a minute one came forward alone, ostentatiously dropping his rifle and waving a blanket over his head. When he came to within fifty yards I stopped him, and he pulled out a piece of paper—all Indians when absent from their reservations are supposed to carry passes—and called out, 'How! Me good Indian!' I answered, 'How,' and assured him most sincerely I was very glad he *was* a good Indian, but I would not let him come closer; and when his companions began to draw near, I covered him with the rifle and made him move off, which he did with a sudden lapse into the most canonical Anglo-Saxon profanity. I then started to lead my horse out to the prairie; and after hovering around a short time they rode off, while I followed suit, but in the opposite direction. It had all passed too quickly for me to have time to get frightened; but during the rest of my ride I was exceedingly uneasy, and pushed tough, speedy old Manitou along at a rapid rate, keeping well out on the level. However, I never saw the Indians again. They may not have intended any mischief beyond giving me a fright; but I did not dare to let them come to close quarters, for they would probably have taken my horse and rifle, and not impossibly my scalp as well. Towards nightfall I fell in with two old trappers who lived near Kildeer Mountains, and they informed me that my assailants were some young Sioux bucks, at whose hands they themselves had just suffered the loss of two horses."

The part of the Territory of Dakota in which Mr. Roosevelt's ranches were situated was, when he went there, a huge, but practically nominal, county having a very scant population, and of which, in an almost equally nominal sense, Medora was the county seat. But as the country became more and more occupied by cattlemen and by granger settlers, thus giving it the basis of a fixed responsible population, the inherent aptitude of the American for effective political organization made itself felt.

There had been a good deal of lawlessness in Medora, and in the loose state of affairs each man had to depend largely upon self-protection; while retribution for atrocious crimes occasionally was dealt out by select committees using ropes as handy means to the desired ends. But the time for more satisfactory methods soon came, and Mr. Roosevelt, who was regarded as a citizen of the place, although his ranches were a considerable distance away, participated in organizing a town government for the "excessively attractive little hamlet." "We elected some good officers," he says, "built a log jail, prohibited all shooting in the streets, and enforced the prohibition."

Mr. Roosevelt continued in the cattle business on the Little Missouri, until in 1886, he was nominated by a convention of "Independents" as its candidate for Mayor of New York city. Two other candidates already had been nominated: one of these was the late Henry George, whose theories had occasioned much uneasiness, if not actual alarm; the other was the late Abram S. Hewitt, who was the Tammany candidate. Of the effect upon Mr. Roosevelt—then on his ranch in Dakota—of this call to a higher duty, Jacob A. Riis, in his "Theodore Roosevelt the Citizen" (1904), says:

"Over the camp-fire he read in a newspaper, sent on from New York, that by a convention of independent citizens, he had been chosen as their standard-bearer in the fight for the mayoralty, then impending. They needed a leader. And that night he hung up the rifle, packed his trunk, and bidding his life on the plains good-bye, started for the East."

The White House.

During the years of his life as a ranchman, Mr. Roosevelt's interests in New York required his occasional presence there, but each return to his ranch was with enthusiastic fondness for the free life in the open that it afforded him, and for the stout-hearted men of the range.

His activities were not restricted to his own interests, nor to his own locality. In the files of northwestern newspapers, as well as in those of many eastern publications, there is abundant evidence that his pen was in frequent use to promote the development and welfare of the immense western country, of which he had become a part—and of which he is still a part, for that matter.

To repeat a statement, and as the reader will have seen in what has gone before, Mr. Roosevelt was no holiday ranchman, but was in the cattle business on a business basis, and with all of his characteristic energy and resolution. Wherever he was known in the Medora country—which was in pretty much all of it within a year or so after he went there—he was popular and "stood solid"; and many are the pleasant reminiscences of him and of his career there by the older citizens of the town and by the older ranchmen of the ranges along the Little Missouri.

Theodore Roosevelt was born in his father's house, No. 28 East Twentieth Street, New York city, on October 27, 1858. His father was a banker and a member of an old Dutch family which for 250 years has been identified with the social, business, and political life of that city; its representatives having frequently and capably filled public positions. Theodore's boyhood was passed in the city of his birth, but in that period his health was not rugged, the ordinary games and other pastimes of boys being beyond his strength. Realizing his need for a more vigorous constitution, he set himself to the task of getting one, from which purpose he seems never to have swerved, and by the time he was ready to enter Harvard College, in 1876, he had begun to be robust. At Harvard his characteristic energy was directed to study and to physical culture, and while he did not become conspicuous in any single athletic sport, he was proficient in several; horsemanship and sparring being prominent among these. It was his knowledge of "the manly art of self-defense" acquired in those days, that served him so good a turn in his encounter with a saloon bully in the Northwest while he was a ranchman on the Little Missouri.

Roosevelt was graduated at Harvard in 1880, and after a tour of Europe he began the study of law in the office of an uncle, Robert B. Roosevelt, in New York city. In the autumn of 1881 he was elected, as an Independent Republican, a member of the New York Legislature, in which body at that time he was the youngest man, and to which he was re-elected in 1883. His legislative course was marked throughout by courageous zeal in the reform of political abuses, and laid the foundations of his later fame as a reformer within his party. In 1884 he was made a delegate from New York to the Republican National Convention, where he was one of the active supporters of Senator Edmunds for the Presidential nomination. But, while he had vehemently opposed the choice of Mr. Blaine, he refused to join his fellow-independents in supporting Mr. Cleveland for the Presidency; and, as already related, in that year established himself as a ranchman in the country of the Little Missouri. In 1886 he was called from the Northwest to become a candidate for Mayor of New York city against Mr. Henry George, and also against the Democratic nominee, Mr. Abram S. Hewitt, who was elected. In May, 1889, President Harrison appointed him a member of the National Civil Service Commission, of which he was made chairman, and so admirable was his work in that position that President Harrison said of it: "If he had no other record than his services as a member of the Civil Service Commission, he would be deserving of the Nation's gratitude and confidence." Mr. Cleveland, in his second Presidential term, as successor to Mr. Harrison, retained Mr. Roosevelt in the position, and thus the latter's work continued until May 1, 1895, when he resigned to become President of the Board of Police Commissioners of New York city. Many abuses had grown up in and around that police department, and to their eradication Roosevelt devoted, with surprising results, all of his tremendous personal energy, even to the extent of going about at night, in Caliph Haroun-al-Raschid fashion, to see whether policemen were obeying their instructions. In the spring of 1897 he resigned from the New York Board of Police Commissioners in response to a call from Washington to serve as Assistant Secretary of the Navy, upon which duty he entered on April 6th, and in which he continued one year and one month.

On May 6, 1898, Mr. Roosevelt resigned as Assistant Secretary of the Navy to take active service in the war with Spain. He had the little practical knowledge of military affairs that he had gained by a short term of service in the Eighth Regiment of New York National Guard, having joined that organization early in 1884, starting in as a lieutenant and quitting with the rank of captain. With Leonard Wood (now a major-general in the regular service) as colonel, and himself as lieutenant-colonel, the First Regiment, United States Volunteer Cavalry, which soon became popularly known as "Roosevelt's Rough Riders," was recruited and organized. Owing partly to the unusual and picturesque *personnel* of the enlisted men—mainly cowboys and other daring spirits from the western plains, with a sprinkling of enthusiastic and adventurous young fellows out of Fifth Avenue, New York, and from Newport, Rhode Island,—this became the most widely-known regimental organization that participated in the Spanish war. It bore a brilliant part in the famous battle of San Juan Hill before Santiago de Cuba, and Lieutenant-Colonel Roosevelt, having distinguished himself there, as well as in the proceedings preliminary to getting there, was made colonel of the regiment on July 11, 1898; Colonel Wood also having been advanced. In the short period of its existence this dashing organization won a conspicuous place in the history of the remarkable conflict that effaced forever the last vestige of Spanish dominion in the western hemisphere.

The war having been a mere ninety-days proposition, Colonel Roosevelt's military career was correspondingly brief, but before it could be regarded as actually closed, although the consummation of peace was an awaiting formality, he was nominated by his party as its candidate for Governor of New York, and at the election late in the autumn of the war-year carried his State by a majority of nearly 18,000.

On June 24, 1899, survivors of Governor Roosevelt's noted regiment met at Las Vegas, New Mexico, in reunion and for the purpose of forming a permanent organization; every troop of the regiment being represented. The Governor, who, of course, was present, was elected honorary President of the association, and Lieutenant-Colonel Brodie active President. At a review of the association Governor Roosevelt was presented with a large and beautiful gold medal by the people of New Mexico.

In 1900 he was nominated and elected by his party Vice-President of the United States on the ticket with William McKinley for his second term as President. On Friday, September 6, 1901, President McKinley was shot while in attendance at the Buffalo, New York, Exposition, and died on Saturday, September 14th. On this day, in Buffalo, Elihu Root, Secretary of War, requested, for reasons of weight with the administration of the Government, that Vice-President Roosevelt take at once the oath of office as President. In the presence of all of the members of Mr. McKinley's Cabinet, excepting the Secretary of State and the Secretary of the Navy, the oath was administered by Judge Hazel of the United States District Court, and Theodore Roosevelt thereupon became the twenty-sixth President of the United States.

In 1904, Mr. Roosevelt became the unanimous choice of the National Convention of his party for President of the United States, and at the ensuing November election he received a vote that gave him the largest representation in the Electoral College that any candidate for his high office ever has had.

These are the bare outlines of a wonderful record for a man who has not yet reached the meridian of life—wonderful even for our own country, in which many men have had remarkable careers; and all of it has been accomplished by sheer strength of character, force of personality, and resolute adherence to elevated conceptions of the duties of citizenship.

At the Yale bi-centennial in October, 1901, the degree of LL.D. was conferred upon President Roosevelt in recognition of his achievements in public life and of his attainments as a scholar. For so busy a man, for one who has spent so large a part of his mature life in the public service, he may be regarded as an unusually prolific author. His more important works are historical, but all are valuable contributions to American literature. Their titles, which follow here, indicate the scope of his literary labors:

"The Naval Operations of the War Between Great Britain and the United States, 1812-1815." 1882.
"Hunting Trips of a Ranchman." 1886.
"Life of Thomas Hart Benton." 1887.
"Life of Gouverneur Morris." 1888.
"Ranch Life and the Hunting Trail." 1888.
"Essays on Practical Politics." 1888.
"New York City: A History." 1891.
"American Big-Game Hunting." 1893.
"The Wilderness Hunter." 1893.
"Hero Tales from American History" (with H. C. Lodge). 1895.
"Hunting in Many Lands." 1895.
"The Winning of the West," 4 volumes. 1896.
"American Ideals and Other Essays." 1897.
"Trail and Camp-fire." 1897.
"Big Game Hunting in the Rockies and on the Great Plains." 1899.
"The Rough Riders." 1899.
"The Strenuous Life." 1900.
"Oliver Cromwell." 1901.

President Roosevelt also is the author of many articles dealing with various subjects that have appeared in magazines and other periodical publications.

In 1881 Theodore Roosevelt married Miss Alice Lee, of Boston, who did not long survive. Several years later he married his present wife, who was Miss Edith Kermit Carow, of New York. He is the father of six children, the eldest being the daughter of his first wife.

Mark Bean Huling.

"The world accepts a man at the estimate he places upon himself," is the utterance of a great thinker, whose writings are read in countless homes of America, and whose hopeful thoughts have inspired thousands of young men and women to renewed effort.

Nothing can be truer than that a person must have confidence in himself if he would inspire confidence in the minds of others. No negative man ever accomplished anything worthy of imitation. It is only the man who assumes the positive attitude of confident expectation who attains permanent success. It is a law of the mind that thoughts of confidence attract like thoughts, and ultimately lead to assured victory.

A stranger meeting M. B. Huling out on the cattle range, would recognize immediately that he was in the presence of a man accustomed to thinking forhimself. Hewould feel instinctively that here was a man in whom he could repose confidence—a man who could be placed in charge of a regiment, and the first time he rode down the line the entire command would acknowledge him to be a leader. This trait of inspiring confidence in others has been of great service to Mr. Huling, and if a similar ability could be imparted to young men generally the whole world would would soon be transformed.

It is difficult, however, for any young man to acquire this desirable condition unless he is thrown upon his own resources early in life. At fourteen years of age Mr. Huling was in the saddle performing the work of a man, and years of experience in the cow camp and on the trail gave him a knowledge of cattle that has made his name known as a practical cowman throughout all of West Texas and the adjoining country.

He is essentially a range man. Twenty-one years ago he selected a location upon the range as far as possible from the frontier gathering places of West Texas, establishing himself in El Paso County, 100 miles from the Rio Grande River. Notwithstanding the fluctuations that have since taken place in the industry he has remained at this spot, weathering the storms that have driven many of his fellow-trail men into other lines of business and amassing a fortune that makes him independent of all changes for the remainder of his life. The good judgment and business ability of Mr. Huling may be ascribed in a large degree to his mother, a woman of remarkable talent in management of business affairs, and one of the best types of the pioneer woman. It has been said that no man is greater than his mother. Whether this is true or not, there is no doubt of the statement that among the women of the frontier were to be found many of the noblest women America or any other country has ever known. Industrious to the limit of their strength, brave almost to the point of rashness, and wholly devoted to their families, these women presented an example of self-sacrifice which, in all the realm of human experience, has never been surpassed.

The Huling family in America has descended from three brothers who crossed the ocean at a very early day, settling, according to family tradition, in Virginia. The original progenitors were of Huguenot blood of France, and the brothers who came to America expatriated themselves in escaping from the bitter persecutions which form one of the most tragic pages in the world's history. The Huguenots were among the best people of France, and what proved to be an irreparable loss to France proved an inestimable blessing to America, as many of the leading families of the United States trace their lineage to the Huguenots.

Thomas Byers Huling, the father of Mr. Huling, was a native of Pittsburg, Pennsylvania, where he was born in 1803. He was early left an orphan, but he secured a good education, and engaged successfully in steamboating, making his headquarters in New Orleans. In 1836 he was attracted to Texas, and took up his residence in Jasper County in the eastern part of the State. Mr. Huling brought with him to his new home a boatload of goods and opened a store, which he conducted in connection with stock-raisnig. In company with two other men Mr. Huling laid out and founded the town of Beaumont, destined after many years, to an experience as exciting as was ever known by any gold-mining camp of the Rocky Mountains.

Mr. Huling served as captain of a company in the Mexican war, and his business grew until he was the owner of a ranch of 500,000 acres and scores of slaves. At the close of the Civil War seventy-five slaves were set free which were owned by Captain Huling. In 1836 he was married to Miss Elizabeth Bullock, born April 12, 1819, in Bourbon County, Kentucky. She was also an orphan, and came to Texas at twelve years of age with an uncle. The couple located on the Angelina River at the crossing of the cattle-trail, where Captain Huling built pens as resting places of the herds passing toward the market. In 1855 the cattle business had increased to such an extent that he moved westward in search of range 300 miles to Lampasas County, then on the border and one of the most flourishing range counties of the State. John Sparks, the present Governor of Nevada, was a resident of the county and a friend of the Huling family. John S. Chisum, the noted cattleman, was a frequent visitor. Occasionally the plains Indians made a dash through the settlements on a horse-stealing expedition. Captain Huling at one time lost 400 head of horses on account of an Indian raid.

On December 12, 1865, Captain Huling died, leaving a widow and eight children, three girls and five boys. The oldest boy was sixteen and M. B. was then ten years of age. His memory does not recall the time when he learned to ride, as he appears almost to have been born in the saddle. Even when a mere youth he understood the various phases of range life, and actively participated in the round-ups and drives. His experience impressed upon him the advantage, from a practical standpoint, of teaching boys and girls how to work. In the household at home the work was performed by the daughters, even when there were many slaves available. Mrs. Huling undertook the management of the ranch and farm with the assistance of her sons, and made a success of it.

M. B. Huling was born in Jasper County, Texas, April 30, 1855, and was given advantages of education not possessed by some of his brothers. He attended school at Bastrop and later at the Military Institute at Austin, working in summer at home.

In 1869, at the age of fourteen years, he made his first long cattle drive. The herd of 1,500 cattle was driven to Baxter Springs, Kansas, the terminus of the nearest railroad. This settlement, as recalled by Mr. Huling, was one of the liveliest spots in America during the heyday of its prosperity as a live-stock shipping point. The town of 1,500 inhabitants was made up principally of saloons, gambling-dens, and boarding-houses, and here thousands of cattle changed owners daily, and pandemonium reigned. The air was filled with the sharp crack of the revolver and the shouts of men, bent on having what was then considered a "good time," ending too often in drunkenness and quarreling. Happily for the Texas boy, he had been warned to avoid the pitfalls in which many older heads had been lost, and he started homeward as soon as the herd was delivered and settlement made. By close attention to business he gained the respect of men who proved good friends in years that followed.

At eighteen years of age Mr. Huling commenced operations for himself. An opportunity of making money presented in the building of rock fences in Lampasas County. He continued at this work a year, investing his earnings in cattle, and soon he had a small herd of 150 head which he could call his own. He was prouder of this little herd than he has ever been of the thousands of cattle which received his attention as years passed. He invested in heifers each year, so that when he located in El Paso County in 1883 he was owner of a herd of 1,250 cattle.

During this time and for years afterwards, Mr. Huling was upon the trail each spring, sometimes driving his own cattle, and at other times in charge of trail-herds owned by large dealers. Frequent trips to the markets gave him a familiarity with the trail that has scarcely been surpassed by any other man living. Mr. Huling was a natural trail-man.

"I would rather be upon the cattle-trail than anywhere else in the world," said he, in speaking of twenty-five years' experience. "My acquaintance with the trail extends back to my early boyhood, and many of the pleasantest recollections of my life were of the trail."

Mr. Huling learned the art of driving cattle so early that he never knew difficulties which caused a great deal of trouble to many trail-herd managers. He says he never had a stampede, and river crossings had no terror for him, as he understood the nature and habits of the Texas Long-horns so well that the herd was put across without delay. His plan was to have the cattle arrive at the stream when they were thirsty, and after the cattle entered the water he kept them moving by pushing forward those at the rear. He never adopted the plan of swimming the horse in front of the cattle.

"One of the important features," said he, "was to engage none but thoroughly competent, experienced men for the drive. Our outfit usually consisted of eleven persons, including myself. Taking out the cook and the horse-wrangler, we had eight men to look after the herd. Every man knew his place, and the movement proceeded like clockwork. It was my duty to find the camping-grounds, and I usually rode ahead at daylight to locate the spot for the next camp. The day's drive was generally twelve or fifteen miles. I returned at noon, and in the evening saw that the cattle were properly placed on the bed-ground. This was important, especially if the weather were stormy. I aimed to bed the cattle on a level tract in the low bushes. It was a risky thing to bed the cattle in a narrow valley or on ground which was hollow and resounded when walked over by man or horse. On very dark nights I called in the guards and turned the cattle loose. In such cases we were all out very early in the morning. It was bad policy to crowd the cattle too close together on the bed-ground. In crossing streams we never shouted, and my experience is that all noise and excitement merely cause trouble in a trail-herd. If the herd is started right and quietly handled there would be few stampedes. A great feature is to keep the cattle full of grass and water."

Mr. Huling saw hundreds of thousands of cattle on the trail, and at one time had charge of a drove of 4,000 cattle in one trail-herd—an unusually large number, as the limit was usually placed at 2,500 or 3,000. His last trip over the trail to Kansas was in 1895. He does not believe the proposed trail-strip from Texas to the Northern markets would have been a success, as thousands of cattle traveling over the same route would have denuded the trail of grass, and cattle could not have "grazed as they traveled," to use a common phase of the cowmen.

The cattle-trail, now faded into history, as viewed by Mr. Huling, was a great step in the growth of the industry and in the course of its progress, diffused a civilizing influence whose beneficial effects are seen on many sides to-day. Cattlemen of the North came into personal contact with cattlemen of the South, and each element found good points in the other. The personal touch always counts, and it has often been remarked that if the North and the South had understood each other before the Civil War there would have been no war. The building of railroads running North and South has led to an interchange of travel like that of the old cattle-trail, and has accomplished more in removing prejudices than all the platform oratory of forty years past.

Coming of a generation which has grown up since 1865, Mr. Huling is a man of broad views and bright anticipations concerning the future. He regards the problem of the negro as the gravest problem that confronts the Nation.

"Education," said he, "has done more harm than good to the negro. Experience of more than thirty years has shown to any fair-minded person that it is a mistake to imagine that book education is of any lasting benefit to the negro. Education simply gives him the big-head; it leads him to think he does n't have to work, and he becomes a loafer. We have all seen white men who are spoiled by education, and the effect on the negro is infinitely worse. What the negro needs is to be put to work and taught how to work. That is the education he needs, and the only one that will make him useful to society. Unless this is done and done promptly the race question will within the next ten years cause a vast amount of trouble to the government."

Since he actively engaged in the cattle business Mr. Huling has passed through nine depressions in the cattle market. In 1885 and '86 he saw range cattle selling as low as $3.00 per head, and he bought 1,000 head at $5.00 a head, payment to be made at his own pleasure. Within six months the market advanced so rapidly that the cattle were sold for $12.00 a head. On account of large investments of cattlemen in thoroughbred bulls, he estimates that Texas cattle are now worth $5.00 a head more than was received for stock shipped from the open range.

In the trail days he sold cattle at $9.00 to $17.00 or $20.00 a head. These were two, three and four-year-olds. The cost of driving the cattle over the trail and delivering at Abilene or other railroad points is estimated by Huling at seventy-five cents a head. His policy in the earlier years was to keep out of debt, and perform as much work as possible himself. For many years he has been associated with his brother-in-law, T. Bean, in the range business. In addition, Mr. Huling has given attention to farming in other parts of the State, and owns farms in Denton, Williamson, and Lampasas Counties, where operations are carried forward upon an extensive scale, according to up-to-date methods.

"Farming," said he, "has made fully as great a progress in Texas as cattle-raising. In the county where I was born, in East Texas, land was offered at ten cents an acre forty years ago and found no purchasers. To-day the same land sells for $10.00 or $12.00 an acre, and is cheap at that. The black-land belt of Texas is a source of wealth that cannot be exhausted in centuries. Some of the oldest farms in the State are in the black-land belt, and without the application of a single pound of fertilizer this land yields good crops as regularly as the season comes round. It seems to be as fertile as ever, and its possibilities are beyond our conception. No land in the world is superior to the black land of Texas in raising cotton, wheat, and oats. As the belt extends from the Red River to the Gulf Coast, it is a great area with a magnificent future. The black-land belt alone is rich enough to make any State of the Union wealthy, and the time will come when ten or fifteen acres of this land will support an entire family.

"The farming region is only one of the features of Texas," continued Mr. Huling. "This State will always be an immense producer of live stock. It will always be a cow country. The advancement of the last ten or fifteen years in the introduction of pure-bred stock is one of the most remarkable steps ever witnessed in any country. John Sparks at one time brought a herd of pure-bred cattle to Texas and lost nearly all of them on account of fever. Science has conquered the terrors of the fever; and recently a herd of 150 Durhams was introduced below the fever line from the North, and only five animals yielded to fever. Vaccination has removed the fear of heavy losses from fever, and given a permanency to the introduction and breeding of fine stock, which cannot fail to have a highly beneficial effect.

"The only Longhorns of the State are now to be found in the pine woods of East Texas, and in a few years the Longhorn will be known only as a curiosity."

The mother of Mr. Huling still lives at Lampasas at the age of eighty-four years, in the clear use of her faculties, and is one of the most respected members of the community.

Mrs. Huling was the mother of eleven children; Robert and James, deceased; Isabella, now Mrs. T. Bean; William, deceased; Rebecca, now Mrs. H. T. Hill, Lampasas County; Almonte, now Mrs. J. A. Abney; W. N.; J. A., deceased; M. B.; B. H., Lampasas County; and B. V., deceased.

From the time he first went upon the plains thirty-five years ago, Mr. Huling has witnessed changes which are of the greatest interest to all Americans. The Indian, the buffalo, and the wild horse roamed at will over a vast range in 1870, which now has been redeemed by the hand of enterprise and labor and fitted for the abode of peace and plenty. Mr. Huling has seen obstacles, one after another, disappear until the cattleman far out on the plains can make his home as safe and comfortable as any in the most enlightened metropolis. He has witnessed the rapid absorption of the open range, the entrance of the farmer and small stock-raiser, and the application of water to barren wastes, making them blossom as the rose. He has been a witness of the building of railroads into Texas, threading the State in every direction, bringing it within easy access of all the markets, and enhancing the value of land everywhere in the State. The grading up of the cattle herds is a work that has enlisted the interest of every Texas cowman, and it is the opinion of Mr. Huling that this work will continue without any cessation in the future.

The region with which he has for years been identified is between the Pecos and the Rio Grande Rivers, in the foot-hills of the Rocky Mountains, and apparently to remain a cow country. This was formerly the roaming place of the Apache Indian, but the Indian has disappeared forever, and the principal enemy the white man is obliged to contend with, is the alkali water. The soil of the valleys is heavily impregnated with alkali, but cattle and the sugar beet thrive well, and in the opinion of some, artificial irrigation will remove the barrier that has heretofore held an immense territory in its clutches. That portions of the country are underlaid with great bodies of water suitable for irrigation is well known.

Although the headquarters of Mr. Huling are sixty-five miles from the nearest postoffice—Toyah—he is by no means the lonely individual one might imagine. The true cattleman is never lonely, for new duties press forward daily upon the ranch, especially upon a ranch ten miles square, and the man whose interest is not in the business cannot be a true cattleman. Mr. Huling was so attentive to his range responsibilities that he seemed doomed to a life of single blessedness. This was his fate until one lucky day Cupid seized the reins, and on the 2d of September, 1903, a wedding was celebrated in Lampasas, at which the contracting parties were M. B. Huling and Miss Margaret Glenn Young, an accomplished young lady of Lampasas, a graduate of the university of her native State, Texas, and one of the most congenial companions a cowman ever claimed as his own. Mrs. Huling is a true daughter of Texas, and the contented air of the husband indicates that he has drawn a prize—and he knows it.

Range and Ranch in the Old Times.

Former Notions About Uncle Sam's Land Supply.—Texans' Beliefs About Theirs.—The Situation at Present.—Conditions in "the Good Old Times."—Starting in the Stock Business on the Open and Free Range.—Methods and Practices of Pioneer Range Stockmen.—Liberal Views as to Extent of Their Pastures.—Theory of "Range Rights."—Resentment of Encroachments Upon Them.—Origin of Our Word "Ranch."—Pioneer Ranch Buildings.—Their Primitive Domestic Arrangements.—Simple but Substantial Table-Fare.—Routine of Ranch Life.—Extraordinary Healthfulness of the Occupation.—Etiquette and Ethics of the Ranch and Range.—Exacting Duties of the Cowboys.—A Trinity of Range Evils.—The Dreaded Stampede.—Methods of Regaining Control of a Running Herd.—Dangerous Work for the Cowboy.—Losses in Stampedes.—Professional Stampeders Among Range Cattle.—The Pioneer Cowman and Agricultural Settlers.—Origin of Some Ranch Terms.—The Cowboy's Skill With the Rope.—The Cowpony and His General Characteristics.—Hospitalities of the Ranch.—Effects of the Bigness of Things on the Open Range.

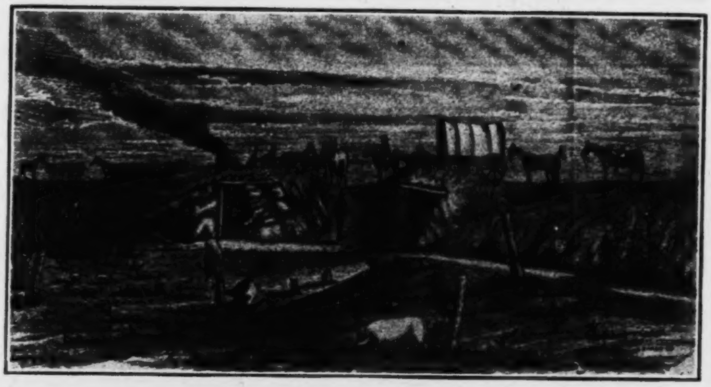
In years not very far back in the past there was cherished in the public mind a confident and most comforting belief that Uncle Sam had land enough to give us all a farm, and probably long would continue to have; and that there would be in his western domain more than enough grazing-land for all who might seek to become pastoral chieftains in preference to following the plow and swinging the hoe, or drudging along in the cooped-up existence of life in a town or city. As Texas, upon its admission to the Union, had reserved to itself its entire present area, our generous Uncle had no holdings in that State to give away to whosoever of his people might ask, but he thought he had more than plenty elsewhere. Many Texans believed in these years, that are not very far back, that their immense land-heritage could not, if ever, become generally occupied and utilized until after their grand-children's grand-children had come and gone; and that a large part of it always would remain wild and tenantless.

At the present time a man seeking to engage in the range-stock business on the plains or in the mountain valleys of the West must buy his way into it—must take over a ready-made outfit, for he would find in all of that vast region scarcely an unreserved square mile of grazing-land of fair quality unoccupied and freely open to his uses. He must have sufficient capital with which to pay for an entire establishment—the seller's herds, the parts of the range he occupies to which he has acquired title under the land laws of the United States or otherwise, and his buildings and other improvements, among which, throughout nearly the whole of the country, would be included some miles o' wire fence. If in Texas, where there is no Federal land, the range might consist in part or entirely of State land held under transferable lease; and so also in the other range States, for each of these received liberal grants of land from the United States when they were admitted to the Union. But outside of Texas the range would be likely to have in it more or less Federal land, and the intending buyer would be pretty sure to discover that certain of the better parts of it, especially of those along the water-courses that make the whole tract useful for stock-raising have, so far as the ranchman could do so under the present Federal land-laws, been "taken up."

In "the good old times" for a decade or two after the close of our Civil War the conditions were entirely different. About all that a man needed then with which to make a start in the business were courage, confidence, and a bunch of cattle. The range country of the national domain, as well as that of Texas, was open and free to whosoever might go in and occupy parts of it, and Nature provided food for the cattle without labor, without money, and without price from their owners. The cattlemen of that period thought they had "struck it rich," as indeed they had, so far as free grass and a range that appeared to be unlimited and inexhaustible could help them on to fortune. They also thought that they had a perpetual possession in which these conditions would continue but little, if any, disturbed, and that their business indefinitely would go on independent of most of the trammels and restraints to which men were subject in the settled parts of the country. They were on everybody's land, on a free range that was fit for no other uses, where their herds might roam and feed the twelvemonth through, and be the source of an unending income.

These beliefs were more prevalent and more firmly fixed among the early southern cattlemen than among those of the central and northern plains regions, though down to about 1880 they were rather common everywhere. The country appeared so endlessly big and its grazing resources seemed so great that it was hard for any man to foresee its "crowded" occupation by range-cattle far within the period of his own lifetime, to say nothing of serious encroachments upon it by tillers of the soil. In these years the methods and practices of the western stockmen as they advanced into the range country were much the same wherever they went, differing only in unimportant details.

The first impulse of a pioneer cattleman who had entered a virgin district with his herd and established his headquarters there, was mentally to claim everything within sight and for a long distance beyond. But when the second one appeared with his stock the two would divide the district, and each keep on his side of the division line as agreed upon. As others came in the district would be still further divided, until, according to the very broad views our pioneer friends held as to the length and breadth of land each should have for "elbow room," it had become fully occupied. There was nothing to prevent them appropriating the country in this manner and arbitrarily defining the boundaries of their respective ranges, and with this practice there developed the theory of "range rights"—that is, of a man's right to his range in consequence of priority of occupation and continuous possession, although none asserted actual ownership of the range-land, nor did any of them really own as much as a square yard of it. Still, under the circumstances, the theory of "range rights" was not an unreasonable proposition.

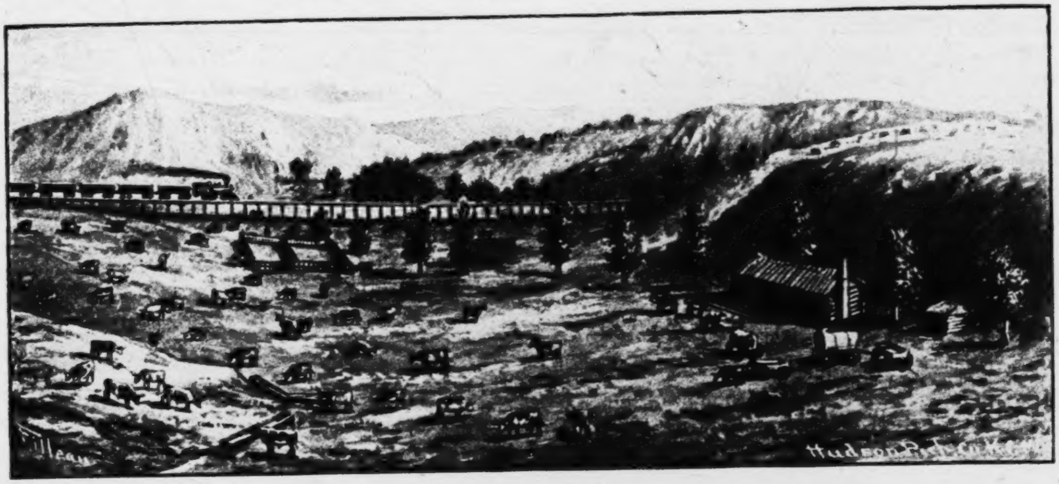


A Range Outfit's Winter Quarters on the Solomon River, Kansas, in the Early '70's.
(*From McCoy's "Sketchrs of the Cattle Trade."*)

For a district to become "fully occupied" did not at that time imply that the cattle outfits in it were near neighbors. In making claim to a range each stockman kept far over on the safe side by taking to himself a-plenty, and therefore their ranch buildings were anywhere from fifteen to thirty miles apart, and sometimes even farther. As a common rule, each man recognized and respected the range-rights of his neighbors in frank good faith, but occasionally there were conflicts, such as appear to have occurred from similar causes in the range live-stock business from a high antiquity in its history.

Strife of this kind is said to have separated in ancient times two famous live-stock men who had long been dwelling together in unity and helping each other in the hardships and emergencies of the range life. When Abram went up out of Egypt, he and his wife and all that he had, he was very rich in cattle, and after he had reached the place where formerly he had made an altar, and there had called on the name of the Lord, his cowboys got to fighting over range-rights with the cowboys of his nephew, Lot; the latter evidently having been the instigator of the trouble.

"And Lot also, which went with Abram, had flocks and herds, and tents. And the land was not able to bear them, that they might dwell together: for their substance was great, so that they could not dwell together. And there was a strife between the herdmen of Abram's cattle and the herdmen of Lot's cattle: * * * And Abram said unto Lot, Let there be no strife, I pray thee, between me and thee, and between my herdmen and thy herdmen; for we be brethren. Is not the whole land before thee? separate thyself, I pray thee, from me; if thou wilt take the left hand, then I will go to the right; or if thou depart to the right hand, then I will go to the left."



View on a Colorado Ranch in the Early '70's.

This settled the matter between Abram and Lot, and the latter betook himself to the range country of the Jordan, which was better than some parts of our own, for it was "well watered everywhere." But between our pioneer chief herdsmen in the West, conclusions concerning the division of the range were not always reached by such gentle and yielding methods as those of Abram.

Encroachments upon what were considered to be "rights" of any kind, but especially of "range-rights," not only provoked much calling on the name of the Lord among our cattlemen in these times, but if persisted in after warning against them had been given, they usually brought on clashes, in which rifles and revolvers were used without hesitation. Such conflicts, which were more frequent in the Southern country than elsewhere, if not at once terminated in the favor of one or the other parties to them, sometimes took on the character of a feud that resulted in much trouble and loss of life. However, they seldom occurred between men who had come in before the district had become what was regarded as fully and sufficiently occupied, but usually were in consequence of some new man attempting to push in with his herd and "crowd" the range, and perhaps to put up ranch buildings as near as eight or ten miles to those of one of the established outfits.

"Ranch" is another alien word that has been engrafted into our language through the operations of western live-stock men, and is a simpler form of the Spanish-American "rancho," which means a farm, but more particularly one devoted to breeding and rearing cattle or other stock, and also a cabin or a hut, or a collection of these, in which ranchmen may live. But, with their characteristic disposition to make the most of everything, our western people employ "ranch" as a verb as well as a noun; as in "ranching," and "to ranch." In many parts of the West there is a growing use of the word with respect to ordinary farms, to fruit-raising, market-gardening, and so forth. A man who had a botbox in one of the wheels of his buggy stopped at a small house by the roadside, near Denver, to borrow a monkey wrench, and was told by the indignant Italian proprietor, who understood English imperfectly, that the place was not a monkey ranch, but a chicken ranch. However, the word in its broader applications still means the establishments and business of the stockmen.

The pioneer ranch outfits as to buildings or shelters were rather primitive affairs that proclaimed yesterday's occupation of the land. At the outset almost anything that could be made to serve the purpose was considered good enough. Where timber was available a roughly-built house of unhewn logs with a "dirt roof" was the quickest and easiest building of a permanent character to construct, but many a man who began business in a small way got through his first year or two in a lean-to "shack" or in a "dug-out." In the southerly parts of the country, "after things became settled," if not before, the ranch buildings usually were either of logs or adobe. The latter, built with thick walls and having a deep dirt-roof, were very comfortable the year 'round, being cool in summer and warm when warmth was needed. In parts of the range country where there were matted growths of grass, sod was used as a building material, the sod cut to proper size being laid up in stone-wall fashion. By the stock-raising as well as by other, pioneers in Kansas, Nebraska, and Colorado many of these sod-houses were used for years, and were almost the equals of adobe structures. In the northern country logs were almost exclusively used, but the dirt roof was common everywhere from the Rio Grande to the headwaters of the Missouri.

Ranch headquarters were located as centrally in the range as practicable; by the side of a stream, and in a clump of trees if the locality were favored with such growths of timber; or under the brow of a hill, or in a widened ravine where there would be some shelter from winter's blasts. But as the nearness of surface-water was the first consideration in the times before the windmill came to help out the western stockman, and as the timber-growths along the streams often were thin and frequently absent in many parts of the range country, it happened even oftener than otherwise that the buildings stood out in the open without any protection from the full glare of the summer sun or from the driving winds of winter storms.

Old Ranch Headquarters in Southwestern Texas.

The typical headquarters establishment of a ranch in the period we are considering here was what was known as "a double cabin" by American pioneers from the beginning. This was a two-room building, the rooms being separated by an open space between, but the roof was continuous over all. In other words, two cabins, ten or fifteen feet apart with a common roof that spanned the division between them; this intermediate space sometimes being left open only on one side. In a ranch-building this between-place came handy for hanging up saddles, bridles, ropes, and so on, on pegs in the logs. One of the rooms was the cook's kingdom, in which he worked and slept and suffered his subjects to eat their meals from a long table; a bench on each side enabling them to seat themselves while eating. Aside from the cook's bunk, his stove and its belongings, the table and its benches, this "mess-room" seldom had any other "furniture." The other room, which usually was much the larger, was sitting-room and sleeping-room combined, with a yawning fireplace at one end. Sleeping bunks were built along the side walls, and the men stowed their personal belongings where they could, hanging their clothing on pegs in the logs. Nearly everything in and around the establishment was primitive. The mess-table and its benches, the bunks and chairs, often were made from "lumber" hewn out on the spot. But as boxes and barrels in which provisions were brought in accumulated, these or their materials were utilized in improving the furniture and fittings of the outfit. Late hours seldom were kept. The men were too tired for that. The rule of the ranch was the old one of early to bed and early to rise.

Near by, the ranch-house there was a corral, and also a small pound or chute, both of which were used chiefly for handling fat cattle that were about to be started away to the market—as for putting the "road brand" on them.

All of these headquarters structures were put together roughly and seemingly in a careless way. Interest was centered on the cattle. They were "the main thing."

A Dug-Out.

As the herd increased and the work was extended farther over the range, outlying stations or camps were provided for the men on duty with the cattle in these distant parts. At some of these stations tents would be used for shelter, but at those expected to be of a more or less permanent character shacks were built, or cave-like dug-outs made in the sides of hills or in those of ravines, these latter being the rudest in appearance of the shelter-contrivances on the range. But the pioneers of the open and free range, owners, and managers or foremen, as well as cowboys, contented themselves with the barest necessities; for they were there to rear and fatten cattle, and not especially for having a good and comfortable time. At these border camps the cowboys did the cooking, and their culinary work usually was limited to what they could do with a frying-pan and a coffee-pot over an open fire.

With the occasional exception of fresh beef from the herd, all of the food consumed on the earlier-time cattle ranches was brought in from the outside, but in no great variety. Salt pork, bacon, coffee, hot biscuits and cornbread, and beans were the mainstays twelve months in the year. Potatoes and onions figured once in a while, but not often enough to reduce them from the rank of luxuries. Other vegetables rarely, if ever, were seen. It was a long time before any of the open-range stockmen thought of such a thing as having a vegetable garden irrigated from the creek or river near. These ranchmen were cattle-raisers, not garden-truckers. Although they had tons of beef on the hoof all around them, they consumed great quantities of pork in the form of salted "side meat" and bacon; and as for coffee, black and strong, it flowed in rivers down their throats—no cowboy considering less than a quart of it a square deal at grub-time. Sugar was but little used, and cream, as with milk and butter, was known only as a reminiscence of life elsewhere. There were plenty of cows around, but the old-time ranchman scorned the thought of being a dairyman, too. Of fruit there was an occasional reminder in the form of dried apples, which appeared on the table between pie-crusts of a kind that only a cowboy could master. The cook made no pretensions in the pastry line.

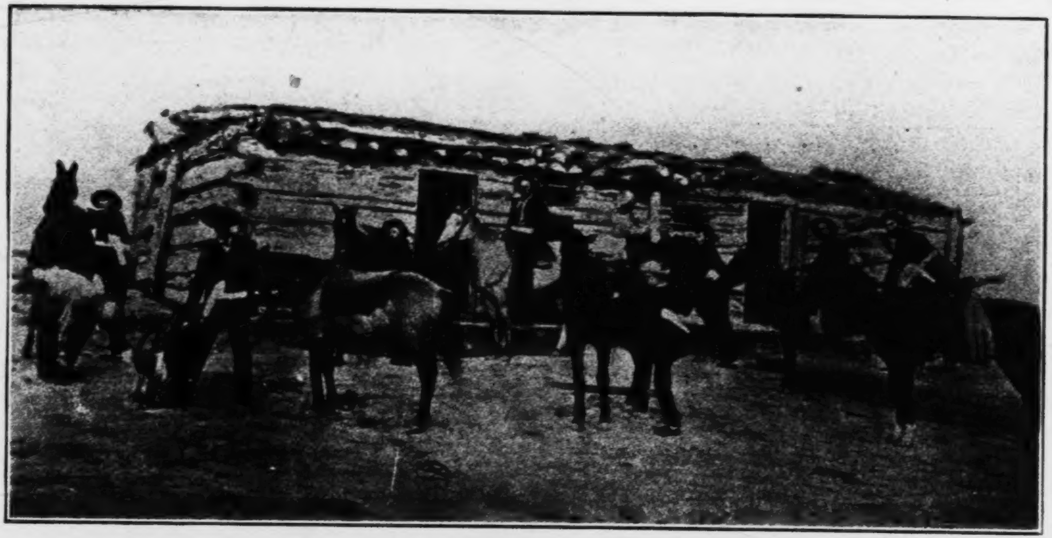
While there was, of course, plenty of game, big and small, the early ranchmen made comparatively little use of it on their mess-tables. While every cowman was a good hunter, he did not go hunting very often. He had his work to do, and it had to be done every day. Moreover, he was on the range for business, and hunting, as the sportsman regards it, was not business to the cowman; and before and above everything else the latter was a cowman.

The more remote ranches might be a hundred miles or two hundred, or even more, from the nearest source of supplies, and for the more distant the fetching of these by wagon was a matter of weeks. It was so also with their mail. If they got any at all, usually it was by sending for it. A cowboy thought nothing of riding thirty or forty miles to a postoffice when there was fair reason for believing he would bring back something for himself or others of the outfit. But in the earlier times a ranch's mail seldom was burdensome.

To those of us who know nothing of it from experience, and who judge from the general conditions by which it was surrounded, the life would seem to have been one of dreary monotony. In many respects it was monotonous, even to those who had become accustomed to it, and would have been intolerably so to most men of the town or city. The ranch trinity of working, eating, and sleeping consumed the days as they came, and there was little opportunity and less time for anything else. The talk at grub-time, and for perhaps a part of an hour around the evening fire, settled down to brief discussion of the day's events, if there had been any worth mentioning, or to an unusual adventure of some man in the outfit, or to something connected with a neighbor ranch fifteen or twenty or thirty miles away, and once in a while to a story, if it were short and well seasoned. But the demands of the trinity kept all this within very narrow limits. Little reading was done: even if there had been an inclination to it among the men of the cattle-range in these earlier times, which there was not as a rule, the exacting trinity stood ready to lay its forbidding hand upon it.

But notwithstanding all that fairly may be said about its monotony, it was a life of many activities, and whatever there was of charm in it—and to many men it had this quality to a great degree—in a large measure came from the freedom, the occasional exciting episodes, but most of all from the vigorous good health that went hand in hand with it in the pure and exhilarating air of the plains. This was no sick man's life. If any entered it with a tendency that way, it either made him well and kept him so or else he quit; one or the other in short order. When cattle-raising on the open range was at its zenith there were about a hundred thousand cowboys in the West—a magnificent army of cavalrymen, of which, so far as general health was concerned, probably 99 per cent. successfully would have passed a physical examination under the regulations of the United States Army.

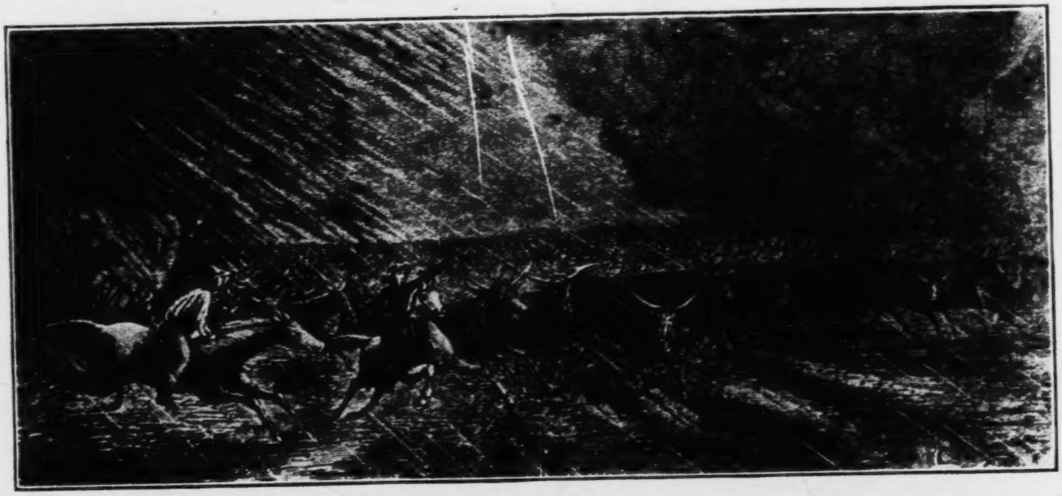
As a common thing the men of the working force of the old-time "free grass" ranch outfit, foremen, as well as cowboys, were known only by their first names or abbreviations of these,



An Abandoned Old-Time Ranch House.

or by a combination of them with specially made "nick-names," or by the latter alone. An adventure either grave or ridiculous, the color of the hair, a freckled face, a slight deformity, or the loss of a finger or two, any marked personal peculiarity, predilection or idiosyncrasy, might and usually did give rise to a befitting nick-name that stuck to the man through his career. Nobody was concerned with the rest of a name. Not to ask personal questions inspired by motives of mere curiosity was one of the rigid rules of range etiquette. A man might tell as much or as little about himself as he saw fit, or nothing at all. Nobody cared. All that was required of him was to do his work faithfully, and not to disturb the peace and harmony of the outfit by ill-temper or viciousness. These men might work together and live together season after season, year after year, without knowing anything more about each other personally than the names they "went by"; and sometimes these would be nick-names only, the significance of which was obscure to men in any other occupation. Yet such continued fellowship implied the presence of tried sterling qualities in these men, who, furthermore, did not conceal their honest regard for a comrade who was "square" and "onto his business."

To be "square" and "onto his business" had a very broad meaning on the open range. A man entitled to such testimonials to his worth had to possess the qualities of unflinching courage, of daring, and of self-reliance; and with these he had to be as ready and willing to "stand by" a brother cowman as to do his duty efficiently in everything that might happen to come up in the work of the day. Moreover, whatever he might have been and might have done elsewhere, he must be truthful, honest, and honorable in all of his relations to the outfit as a whole and to each of the men with whom he was associated in taking care of its property. Lying, crookedness, and double-dealing were intolerable offenses in that close-bound life.



A Stampeding Herd.

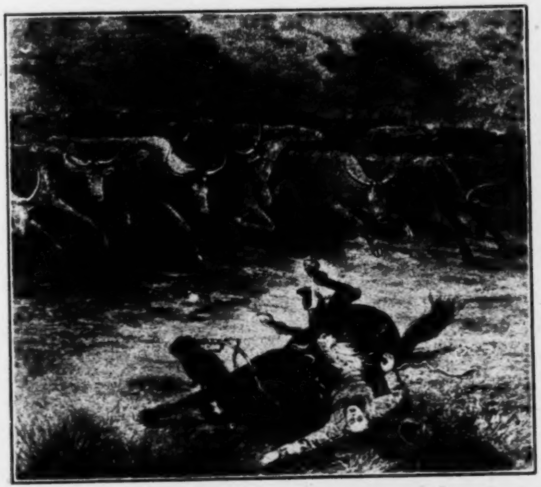
In these old times the cowboys were substitutes for fences, and their work usually went on day and night. As the open range might not present a barrier to their wanderings within hundreds of miles, the herds had to be guarded at night as well as by day. The pre-historic "guardian of the cattle," from whose occupation the modern titles of "lord" and "prince" have have come down to us through the ages, came back to life again in the American cowboy of the free-grass era. To the latter the seasons brought but little variation in his duties, and "bad weather" affected them only to make them harder, for the worst of it did not warrant him in leaving his cattle to take care of themselves—not even when the most furious "blizzard" or "norther" broke forth and swept over the range and brought times that tried men's souls. Yet with all the guarding some of the cattle managed to go astray. These shifted for themselves until the great "round-up" of the springtime gathered them in again.

The ranch trinity of working, eating, and sleeping was not the only one recognized by these cowmen. There was another of a quite different sort out on the range; a trinity of evils—the blizzard, the drouth, and the stampede. In the old days the cattleman never forgot the destructive powers of this trinity. If he happened to be an absent-minded man about some things—an exception among those of his calling—his tributes to this trio kept him from forgetting. The first might destroy half his property, even more, between two sunrisings, and also leave the frozen bodies of some of his men buried in a drift of sleet and snow that had covered them where they sank down exhausted; the second was not so swift in its work, it did not rush down upon its victims with a howl and a roar, freezing the blood in their veins, but because it was stealthy it was none the less deadly when it parched and burned the land and all that grew upon it, and boiled away the water of the pools and of the running streams; the third, while it might affect one herd and, for the time, leave another undisturbed, was an ever-present possibility, a standing menace that had all seasons for its own. In dealing with the first two of these men could do little, but with the third they must try to do much. As we return to the first two on later pages of this volume, we shall ask the reader's attention here only to some of the circumstances and consequences that attended the stampede of a herd of the half-wild cattle of the times of the open range.

As with the buffalos, some trifling thing might start a herd of these beasts on a run of anywhere from ten to thirty miles, or until the panting creatures became so worn out that they could go no farther. The more dreaded by the cowmen were the stampedes at night, and the worst occurred in thickly-dark and stormy nights when lightning flamed and thunder rumbled in the heavy masses of on-rolling clouds. Any thing might start the herd then: the sound from the breaking down of a bunch of dry weeds, the plunge or snort or "cough" of a horse, a movement of one of their own number, or something that no man could see or hear; but above all the crash of a near and blinding flash of lightning. The cattle might be lying on the ground in quiet, and apparently intending to stay there in peace till morning. Suddenly one common impulse brought them to their feet and started them on a wild, headlong rush through the darkness. Away they went in a frantic, stumbling, panic-crazy, plunging mass, with little bluish flames flickering at the tips of horns—electric lights caused by the friction of their hairy bodies in the jam.

Then there was dangerous work for the cowmen. If the herd were not quickly brought under control there would be plenty of beef-wreckage at the first bluff or first steep river-bank ahead, and the survivors of the tumble would scatter far and wide; or if not this, the herd would become broken as it kept on its run and a scattering would follow. However black the night, however furious the tempest of wind and rain now may have become, however rough the ground, the cowmen must do their utmost to get the herd under control. Out into the wild, thick night they dash at the top-speed of their horses along the flanks of the running herd. If the horses have been in the business for a few seasons, they know what is expected of them, and they also know how. The cowmen who are upon their backs must get at the "head" of the crazy herd. Not in front of it! They could do no good there. But at the right and at the left of the leaders of the horde of panic-stricken horned fools. Perhaps the brow of the bluff or the edge of the steep river-bank may be reached before these wild riders come up with the head, and all may go tumbling over together. No matter about that. It is the duty of these men to save the herd from loss; not to look out for themselves

Once up with the head, the cowboy on the left might, by his voice, or by forcing his horse against a leading steer near him and using the quirt, or by firing his revolver in front of the faces of the leaders on his side, cause the herd to swerve a little to the right; or his partner on the other side might, by the same methods, start the leaders in a swing to the left. It did not matter which. A swing one way or the other, as a rule, was the beginning of the end of the stampede. The cattle behind usually followed their leaders, and the cowboys pressed the swerve until the herd was moving on a path that formed a part of a circle around which it rushed wildly. As the horde went 'round and 'round the men continued to crowd the leaders inward, and after a little more of this "milling," as such a movement was called by the range cattlemen, the herd slowed down and finally came to a standstill in a circular mass of panting and blowing four-footed lunatics. As the end drew near, the cowboys, riding around the herd, began singing, or talking in a soothing tone to the cattle—though the words might be those of most elaborate profanity—and presently the run was over, and as their panicky state of mind gave way the animals willingly laid down to rest.



A Perilous Situation.
(From Thayer's "Marvels of the New West.")

The situation of a cowboy in his efforts to bring a stampeding herd under control was always one of danger, and greatly so where the ground was rough. The horse must go at his best, but the rider could not choose the way. Both must take their chances for escaping a stumble and a fall. This, even on the flank of a herd, if close to the body of cattle, might put horse and rider under the hoofs of enough of the animals quickly to stamp out the life of the man, if not of both. If by some mischance or miscalculation a cowboy got in front of the herd his place was one of grave peril. A stumble and fall there meant a cruel death. The crazy horde would roll over the prostrate horse and his rider; and next day a pulpy mass that yesterday had been a man would be buried in the prairie where it lay. During the years of the long trails and the open range many a cowboy met his fate under the hoofs of a stampeding herd of the barbarian cattle of that period.

Frequently a stampede caused heavy losses and many injuries among the cattle. This was sure to be the case if the herd went over the brow of a bluff or a precipitous river-bank in its frantic rush to get away. Some were crushed to death and others were crippled by broken legs in the "pile-up"; and if there were much water in the river many that otherwise might have pulled out of the scrape were drowned. In the run itself there were deaths and injuries. A stumbling steer would have a heap of his followers upon him in an instant, and probably be killed or so badly hurt that he would have to be shot after the trouble was over; others were gored and torn by the long and sharp horns of those beside or behind them; while the minor injuries, such as the loss of horns and the crushing of hoofs, were common. Aside from these, the loss of weight by stampeding was a serious one to the owner. If nothing worse happened, this alone meant the disappearance of dollars in proportion to the size of the herd and the distance of the run.

A stampeded herd often became widely scattered, and if it were a trail-herd the scattering entailed delay and heavy loss, and the labor in getting together again as many as could be found over the wide stretch of country in which they had been distributed was great, and often a considerable number were irretrievably lost. Sometimes a herd would be divided or "split" early in the run, perhaps by some natural obstacle, or when the swing was too sharp at the start. These divisions might become subdivided, and so result in a much wider scattering.

Some of these old-time herds acquired a habit of stampeding, and this, once contracted, was hard to break; the remedy being that of dividing the herd, and putting such animals as had shown themselves much disposed to be trouble-breeders in corrals for a while. In nearly every herd there were some of these disturbers, professional stampeders. Usually they were long-legged slab-sided steers that saw or heard trouble in everything, or pretended to, and seemed to spend most of their time in looking or listening for a pretext upon which to start a run. They knew each other, too, and frequently got together for conference over ways and means for the next break, and when this occurred these professional stampeders would be found at the head. Frequently they would go around hooking up the cattle after most of the herd had lain down with the intention of staying where they were all night. Some owners, when a bunch of these agitators had developed in a range-herd, cut out the offenders and ended their pernicious activity by selling them for whatever they would bring; which seldom was much, for their incessant restlessness usually kept them in inferior condition.

Burial of a Cowboy.

The open range pioneer cowman, whether owner, foreman, or cowboy, looked upon the agricultural settler, who edged his way into the border of the great free grass domain, with much disfavor. What business had he crowding in! Could n't he see that it was a cow-country and no place for men with plows and hoes! It was bad enough to have sheepmen hanging around, but this fellow who disfigured the land with his little fences and furrows was worse; and if his kind was to come in and squat at the good watering-places the range country soon would "go to the devil." In the South the pioneer tiller of the soil was called a "nester," and in the central and northern range regions a "granger." But in all the dislike of him was common and cordial among cowmen. In the earlier times on the range the cattle were occupying much land that was well adapted to agriculture, and as the years went by it became occupied by farmers, the stockmen shifting themselves farther out and to higher and drier country. But the old belief that there never would be a demand even for the earlier cattle-lands for farming had been so deeply impressed into the mind of the cowman that he could not help feeling aggrieved when he heard of a nester, or granger, settling anywhere within fifty miles of him. So the coming of such intruders caused him to harbor gloomy views of the future of the country, and also to give vigorous expression to his torrid opinions of men who defiled it by building fences and tearing up the ground.

Along with the word "ranch" our pioneer range cattlemen adopted from their Mexican friends several other terms that came handy in their business, and which have become engrafted into our language—especially into common speech in the West. One of these, "cavvie-yard," is, upon its face, rather misleading as to its meaning to one not acquainted with it. It does not apply to a yard or enclosure, but means a bunch of cow-horses wherever they may be—the extra horses, those not at the time under the saddle. In Spanish it is *caballado*, but among the Mexicans it became degraded into "cavayer" or "cav-a-yah." Our cowboys pushed it along a little further and fixed it in its present form. The cowboy's "quirt" got its name from the Spanish *cuerda*, meaning a cord. It is a whip with a short wooden or stiff leather handle and braided rawhide lash or lashes about two feet long. The lariat, especially one of horse-hair, primarily is a rope used for tethering or picketing animals. Sometimes it was made of grass, and of course often was used for any purposes for which a rope might be needed. The word came from the Spanish *la reata*, the literal meaning of which may be expressed as "the tie back." The word also is used as a verb, as "to fasten," or "to catch," with a lariat. The lasso is a long line, usually made of hide, with a running noose. While its name was introduced into our range country by Mexicans, the word is not of Spanish origin, but came from the Portuguese *laco*, which has a meaning equivalent to "snare." As with lariat, the word is used as a verb, too, as "to lasso." But very early in cattle-raising on the plains our cowboys began calling the lasso a "rope," and within a few years the latter became the common term for it, as it is to this day. Instead of lassoing a beast with a lasso, they preferred to rope it with a rope. Among stockmen on the Pacific coast "lasso" took a firmer hold, but while it is still in use there to a considerable extent, the simpler "rope" of the plains is more commonly heard.

Next to his saddle and bridle, the rope was the most important article in the working outfit of the cowboy of the open range, and his standing among his associates depended a great deal upon his dexterity in using it. As we have mentioned heretofore, the rope was used by him for a variety of purposes, but the test of his skill in the use of it was in unerringly putting it around any designated leg of a fleeing horse, or around either horn or any leg of a running cow or steer. Most of the old-time cowboys could do this with precision at the first swing, while the horses they rode were going at the top of their speed.

In these feats, as well as in most other things that were to be done on the range, a capable range-horse could be and usually was of much help to his rider. Like his master, the "cow pony" of free-grass times was a product of the conditions under which he lived and of the business in which he took so important a part; and also like his master, he had his spells of freakiness and of "turning loose" in disregard of proprieties and conventionalities. Yet, and still further like his master, most of the days of his life were spent in attention to duty, in hard work along hard lines, and for small compensation. The toughest steer was soft in comparison with him, and he could pick a living by pawing away the snow in the hardest winter, where his horned associates were dying of hunger. In the coldest and roughest of weather he was left shelterless, out in the open, and if he felt the need for a refuge of any kind he had to find something that Nature had provided. He would work over miles of range by day and then contentedly pick up his provender by night—often where the grass was short and thin. Of the bounties of feed-box and manger to which the farm-horse is accustomed he knew nothing; for his was an oatless, cornless, and hayless existence. In later times when some grain began to be fed to range-horses, the cow pony did not recognize it

A Sod House.
(A Reminiscence of Pioneer Days.)

as food, and would become almost starved before he would touch it. He had to be taught to eat corn and oats by having a nose-bag containing some of the grain attached to his muzzle to be worn until by close and continued contact of his mouth with its contents he was induced to experiment with them. When there was water at hand the pony drank, but if there were none around he waited, for he could endure the torments of thirst longer than any of his associate fellow-creatures, his rider not excepted. To be blanketed in stormy weather was a thing unknown to him, and he was as ignorant of the uses of a currycomb as he was of those of a toothbrush.

Hauling Ranch Supplies.
(From Thayer's "Marvels of the New West.")

Yet, and still again like his master, he enjoyed the life that he led, and took pride in his business. It pleased him to head off an unruly cow which was trying to break away from the herd, so to display her independence of restraint, and to drive her back in humility and as straight as a cow could be driven anywhere, keeping close to her all the while, just to show her that there was some other live stock on the range. But it pleased him more to throw himself back and brace himself when he saw that his master's rope had caught a leg of a lumbering steer which had been of the opinion that he could behave about as he saw fit. At the round-up the pony took part in the proceedings with great spirit, and in "cutting-out" instantly could follow the twists and turns of the most agile beast of the herd. Having learned his trade, he knew what had to be done, and done quickly, and how to do it, when the cattle stampeded, and he did most of his part without guidance from his rider.

But once in a while he and his friends would stampede on their own account. While they were familiar with storms, lightning, and thunder, as well as with most other causes of alarm incident to horse-life on the plains, the blood of their "wild" ancestors occasionally would assert itself, and then off they would go tearing over the country, apparently in as wild a panic as that of the craziest herd of stampeding cattle—a performance that might be compared to the doings of some of their riders when the latter were "in town." A stampeding horse herd usually was much more difficult to stop and bring under control than one of cattle, but the horses were not so likely to be injured or killed in the run. Sometimes a troop consisting entirely of old, trained, and experienced cow ponies would break forth and go like the wind for hours, causing no end of trouble in finding them and getting them back. After having "turned loose" in this fashion probably they would settle down to their regular work and keep steadily at it through several seasons without making another break.

It is not hard to see that the old-time cow pony had traits of character that bore a striking resemblance to most of those that distinguished the fearless and faithful custodian of other men's property who bestrode him.

While the ranch-house of the old days was rude and primitive in appearance, and seemed to lack every means of convenience and comfort, it was as hospitable as any of its large, even mansionlike and luxurious, present-time ranch homes. Its doors were lockless and swung open at the touch of the hand. The wayfarer, whoever or whatever he might be, was welcome to food and shelter if he "behaved himself." He might go on his way next morning or next week: it was all the same. He knew when he was ready to leave. No questions were asked. The stranger might or might not tell of himself—just as he chose. When the time came for going, he mounted his horse and rode away. If there were any farewell words they were few and not of the "thanking" kind. "Thanks" were not "good form," but were likely to be irritating. The silent good-bye of a waive of the hand by host and guest was preferable. An offer of pay by a guest for his keeping was as grave an offense as he could commit and brought upon him the scorn and contempt of every man on the ranch, and made him the subject of occasional vigorous comment for months afterward.

Sometimes, as when a round-up was on, all hands might be away from the ranch-house. But its door was still unlocked and ready to swing open at a touch. The wayfarer then had to take care of himself. Flour or meal, bacon, and so forth, were there to his hand, and so he cooked and ate. The sleeping-bunks were there, and probably he had a blanket of his own; the boys were likely to have taken theirs with them. However this might be, the stranger could get through the night with a fair degree of comfort, for to that end he might use whatever he found. Next day, or whenever he was ready, he "struck out," after having made sure that he left the house as he had found it, excepting as to a depletion of its provisions, which was not of the slightest importance. Perhaps he was a cowman himself, whose hospitality often had been at the command of others; but it did not matter who he was if he had "behaved himself."

It was a big country, and its bigness broke down and suppressed small ideas and small things. Whatever it was, it must have size, largeness, to be worth while. The great range seemed endless—like the wide ocean; the trails were long—measured by hundreds of miles; and the herds were large—"hundred" being too small a unit for use in their counting. In this bigness of things there was no room for those that were little.

W. N. Waddell.

West Texas is a vast region, recognized in live-stock circles of the Lone Star State as destined by nature for a cow country. Bounded on the West by the Rio Grande River and extending north and south for 700 miles, the eastern boundary is somewhat indefinite. Many Texans in using the term West Texas mean all the immense area in the State between Fort Worth and El Paso, a distance of more than 600 miles. Others restrict West Texas to a strip of country 100 to 300 miles wide on the western border of the State.

In this region a majority of the leading live-stock men of Texas made their start. Here they gained their early lessons in a business which has made the name of Texas known in the remotest countries of the globe. Here, as camp-rustlers, cowboys, foremen, managers, scores of the most successful cattlemen of Texas laid the foundations of their fortune, and many of the pioneers, now living in ease and affluence in cultured communities, look back upon the years spent on the range of West Texas as the most interesting of their lives. Thriving towns and cities have sprung up along the railways which now cross West Texas, and the mighty region, a generation ago traversed only over the ancient Indian trails, is assuming the garb of civilization and possesses many of the advantages known to favored localities of the East.

When W. N. Waddell first saw West Texas in 1879 the country was occupied solely by large cattle and sheep companies. A man could travel for days without seeing a fence, and a patriarchal style of life prevailed, in striking contrast with the customs of to-day. The camps were established along the water-courses, and the extent of range controlled by any company was a matter decided by the live-stock men themselves. The buffaloes and the Indians were just retiring, and the lawlessness that succeeded the Civil War was giving way to the growing sentiment in favor of personal safety and the rights of property.

The early cowmen reveled in magnificent distances. The nearest post office to the camp where Mr. Waddell established himself was Buffalo Gap, sixty-five miles away, and the base of supplies was at Belle Plains, 100 miles distant. The cowmen lived in the dug-out or camped under the shadow of a friendly ravine with the sky as their covering and the earth as their bed. The climate of West Texas invites to out-door life. The winter storms of the northern latitudes are unknown, and in summer the nights are always cool. The only drawback to the country in the early days was lack of water. This has in recent years been overcome in an important degree by the use of wells from fifty to 250 feet deep, and an unfailing source of pure water has added immensely to the possibilities of this portion of Texas. The boring of wells marks the most important step in the growth of West Texas that has been known since the country was redeemed from the Indian. With the advent of the bored well and the encroachment of the little settler, land has advanced in value and the open range has disappeared. All the land as far west as the Pecos River is fenced, and fortunate indeed is the cowman who foresaw the change that was approaching and acquired sufficient acreage for a range before prices advanced.

Mr. Waddell is among those who prepared for the new dispensation, and he is permanently located on one of the choice spots of West Texas, five miles from Odessa. Here he maintains a system of breeding, to which he has devoted years of study, his object being to supply young stock of high quality to farmers of Ohio, Indiana, or Illinois, or other Northern States, to be fattened for the market. Mr. Waddell has devoted a great deal of time to the subject, and prophesies that after the movement is once fully started it will be of the highest importance to live-stock men of West Texas. He is convinced that West Texas, north of the quarantine line, is capable of supplying young stock for feeding purposes, which will equal in quality and weight the feeders bred in any of the Northern States. This is a subject of interest to stock-raisers, shippers, and feeders, especially the small farmers, who have the capacity of feeding one or more carloads of cattle.

"My attention was called to the matter while visiting in the States north of the Ohio River," said Mr. Waddell. "There are hundreds and thousands of farmers who would undertake to buy calves in small lots and feed them each winter if the business is properly developed. My ambition is to acquaint the feeders with the superior qualities of the cattle raised on the plains of Texas, so that the raiser may be able to realize a value for his cattle in proportion to the good material he is able to supply. Cattle north of the quarantine line can be shipped anywhere with perfect safety, and the best place in the world to ship our calves and yearlings is to the farmers of Iowa, Illinois, Indiana, or Ohio. Any farmer who makes a fair trial will be in the market every fall for Texas cattle. It is better for them to buy the calves before they lose the calf-fat in October, November, or December. The results are surprising. I hope to live to see the day when agencies will be established in half a dozen States for the purpose of delivering West Texas cattle to farmers. It is simply a matter of education, and imaginary objections will quickly vanish. We have the high-grade stuff and plenty of it. Breeders of the North who are constantly courting the Texas trade for sale of male animals should show their appreciation of the business secured, by helping to place the high-grade cattle, raised north of the quarantine line, among their feeder customers at home. It improves young calves to take them north, and the natural outlet for our high-grade cattle is in the feeding States.

"The quarantine line is 100 miles south of Odessa, and our cattle can go anywhere. I regard the quarantine line as most sacred to the cattle industry, and the perpetuation of this line as it is to-day, is a responsibility the State of Texas should ever regard."

Mr. Waddell has original ideas as to breeding. For a number of years he visited the principal breeding farms of the North, and became personally acquainted with the leading breeders and their methods. Twenty years ago he began to pay special attention to range breeding, and his interest has increased as he has grown in years. One of the results of his observations is that the majority of cattlemen are not qualified to select the male best adapted for a cow. "There are too many buyers of bulls in the country," said he. "Of course, the bull must have the breeding, but there are just as many 'sorry' animals produced from registered cattle as from grade-cattle, numbers considered. The buyers should never select more than 60 or 75 per cent of the males out of any herd, and it is an accident if more than one animal is produced in a herd in any one year fit to go to the head in a show-ring. Neither is it the show-ring mother that produces the show-ring calf. Go to a breeding-farm and the manager will show you the fanciest calves, but when you find the mother she is not the best show cow. I have a cow weighing 1,450 pounds, of the highest type of Shorthorn I ever saw, yet she never gave me a satisfactory calf. This is one of the mysteries the breeder is obliged to face. There is no doubt that the pre-potent like-begetting-like qualities may be destroyed to a certain extent by high feeding and tender care. Turn a hand-fed bull into a pasture with fifty cows; he may produce twenty calves. Take another bull not so well cared for and make a similar test; he may produce forty or forty-five calves. Turn the over-fed, petted animal out on grass, and in one month he has deteriorated as much as his hardier brother in the three months. The feeding and care of animals to be good for nothing but pictures is inflicting a great damage on the industry, and I am glad the veteran John Gosling sounded a warning and called attention to the importance of offering premiums for range cattle rather than for fat cattle."

Mr. Waddell is an advocate of changing the breed every three or four years. He alternates between the Hereford and Shorthorn, as it is his experience that, unless extreme care is devoted to the selection of males, the herd will deteriorate. "A steer out of a Durham cow by a registered Hereford makes the best feeder in the world," said he. "I know that the cross I have named will make the best cow to run on grass, or the best beef steer to mature on grass. The Hereford withstands hardships better than the Shorthorn, but the advantage of the Shorthorn is that he weighs more pounds. He grows larger, and as a range proposition a bunch of well-bred Shorthorns will show more loin, more high-priced cuts of meat, than the same grade of Herefords raised on grass. A man can take a given area of land and raise more pounds of meat by breeding Shorthorns than by breeding Herefords, but the Hereford has the greater endurance. I believe a Scotch top bull, or bull with two or three crosses of Scotch blood, will do as well as a Hereford bull and get as many calves. There should be sufficient Scotch blood to offset the harmful effects that have been produced in the Durham herd by the very founders of the herd. The bulls produced by Bates & Booth, of England, Abe Rennick and Alexander of Kentucky, in the first importations of Shorthorn cattle. I believe the Shorthorn bull so bred will stand the punishment on the range and produce his kind in as marked a degree, almost as any Hereford. I look for individuality first and breeding afterwards, for experience has shown that an individual without breeding will produce better results than a high-bred animal with no individuality."

Mr. Waddell is very strongly of the opinion that in-breeding, indiscriminately pursued by different breeders of the country, cannot fail to produce harmful results. He has performed an important service to West Texas in introducing high-grade animals to the herds, and he expects to continue to do so upon even a larger scale than heretofore.

He is an advocate of running sheep upon the same range with cattle, where the grass is short and adapted for sheep-grazing. Upon a range of 150,000 acres Mr. Waddell grazed 5,000 to 10,000 sheep and 3,000 to 6,000 cattle. It was his custom to herd the sheep, never allowing them to feed in one place for more than one week. At the present time there are few sheep herds of any importance east of the Pecos River in West Texas.

W. N. Waddell was born on a farm in Gonzales County, Texas, eighty miles south of Austin on the 7th of May, 1860. At the age of forty-three Mr. Waddell has hardly reached the prime of life, although he has passed through many of the ups and downs of life upon the range, and has shirked no responsibility when it presented. Graceful and handsome in appearance, gentlemanly in address, and prompt and straightforward in all business affairs, Mr. Waddell has earned the success that has crowned his labors.

The father of Mr. Waddell was attracted to Texas in 1836, when a call was issued by the authorities for assistance from brethren in the United States to aid in throwing off the Mexican yoke. The noted frontiersman, David Crocket, and many other daring spirits, responded to the call, and the elder Waddell soon found himself enrolled under Colonel Fannin and marching with a little army of 300 brave men to meet Santa Anna. On the route a Mississippi man who was a member of the party lost his mind. It was decided to send the man back to his friends, and to Waddell was assigned the escort duty. The trip required several weeks, but to this distasteful assignment Mr. Waddell owed life. Had he proceeded with Colonel Fannin he would in all probability have met the fate of the gallant commander and his men. Practically the entire force was wiped out in the massacre which followed the battle of Goliad, two brothers of Mrs. Waddell being among the number. The elder Waddell returned to Missouri in 1838, and conducted his family to Texas. Mrs. Waddell's maiden name was Barbara Vaughan. Both she and her husband were natives of Kentucky. A branch of the Waddell family settled in Missouri, where the name is well known. Previous to his trip to Texas the elder Waddell took part in the Black Hawk War, and his fighting qualities were further exemplified in the war with Mexico. Mrs. Waddell died in 1869 and Mr. Waddell in 1889, at the advanced age of eighty-one years.

There were five children in the family—three brothers and two sisters. W. N. Waddell was the youngest member. One of his early recollections is a trip he made with his father to Flatonia (so named from the father of W. F. Flato, the well-known live-stock commission man), where Mr. Waddell paid $16.00 for a barrel of flour. Young Waddell was given such opportunities of education as his father could afford. He attended school at Seguin, and when the general Government granted a pension of $1,600 to his father on account of services in the Mexican War, the boy was sent to Concrete College, a local institution of Southern Texas. His first employment was clerking in a store, where he remained for fourteen months. At nineteen years of age he decided to seek a broader field, and he entered upon his life-work as a cowboy on the plains of Texas. Soon after reaching West Texas Mr. Waddell was so fortunate as to meet Miss Ella Byler, a Texas girl, whose parents were among the settlers of Fayette County. A mutual attraction resulted in marriage, an event that Mr. Waddell has ever regarded as the luckiest of his life. Mrs. Waddell is a woman of unusual capabilities of mind and heart, and she has been an unfailing source of inspiration to her husband. The couple were married in 1881. The ceremony was thoroughly unique. The bride was attired for the occasion in a dug-out, and the ceremony was pronounced in simple frontier style in a tent. The nearest minister of the gospel lived twelve miles away. A short time previous to the day set for the marriage the minister's cows wandered off, and he sent word out among the cowboys that he would marry anyone of them free of charge who would find his cows. The animals were found by W. N. Waddell and delivered to their owner.

In the year of his marriage Mr. Waddell sold his herd of cattle to George M. Casey, of Missouri. He engaged in buying sheep for two years, when he sold the sheep and ranch to Vermont investors. Moving to Colorado City, he invested in real estate, which he managed until 1887, when he closed out his interests, and bought a large sheep and cattle ranch at Iatan Tank, Howard County. He went out of the sheep business in 1891. He began traveling North for high-bred male cattle in 1890, and made rapid strides towards building up a large herd, when came the disastrous drouth of 1894. During that year Mr. Waddell lost $29,000 feeding cattle and 3,000 head of cattle died on the ranch from lack of water and grass. Everything was swept away except a plucky wife and a confidence in ultimate success—a prevailing trait in the character of Mr. Waddell. In the ten years that have since elapsed the hopes of Mr. Waddell have been more than realized. He is of the opinion that West Texas can never again witness a repetition of the experiences of 1894, as water is assured by boring wells, and the country has developed until forage for live stock is readily available.

Mr. Waddell received second premium in competition with the West at the Royal Stock Show, Kansas City, 1902, upon a car-load of Hereford yearlings raised in West Texas, and is a staunch advocate that West Texas has all the qualities of climate, soil, and food necessary for the production of the best cattle to be found in America.

Solomon Luna.

When sheep-raising in the Southwest is mentioned, one of the first names that comes to the mind is that of Solomon Luna. Not that Mr. Luna is the oldest of the sheep-raisers, for he is just past forty-five years of age, but because he has been prominently identified with the industry since his early youth, and the family, of which he is the leading representative, is one of the historical families in the handling of live stock in New Mexico. At the present time Mr. Luna is the largest sheep-owner in the Territory.

The history of the Lunas in America dates from 1736, a period of forty years before the Declaration of Independence, and more than fifty years before the Republic of the United States of America formally announced its presence to the world. His ancestors were pioneers of the Southwest. The family had its origin centuries ago in Spain. In the mother country the prefix "*de*" was a part of the name. *Luna* is the Latin word for "moon," and "*de luna*" literally means "of the moon." The "*de*" was dropped after the family became permanently established in America. Two of the de Luna brothers were in the eighteenth century presented by the Spanish crown with a grant of 80,000 acres of land in New Mexico, extending along the valley of the Rio Grande River, twenty-five miles south of the present city of Albuquerque. A portion of the original grant still remains intact as a family possession, under charge of Solomon Luna. Los Lunas, one of the pioneer Spanish settlements of the Rio Grande Valley, received its name from these brave men who voluntarily separated themselves from the protection and comforts of civilization to assist in the development of the New World.

The spot to which they journeyed was 1,500 miles from the City of Mexico, far out upon the northern frontier. The Spanish government then claimed all the territory northward to the British line and west to the Pacific Ocean, including also the present area of Texas and covering settlements on the coast of California. It was a vast empire whose wealth of minerals and agriculture surpassed the most feverish dreams of Oriental monarch, and whose growth during the last half century is one of the marvels of modern life.

The principal occupation of the Spanish-American people of New Mexico for many years was that of tending straggling flocks and herds and in protecting their possessions from inroads of marauding bands of Indians. Trading caravans occasionally passed up the valley of the Rio Grande with their quaint ox teams, drawing heavy wagons by pushing with their heads against a stout cross-piece of wood. These traders were about the only means of communication with the outside world, and few were the letters received by settlers from friends on the eastern shores of the Atlantic. Under these circumstances the bonds of attachment to the old country gradually became weaker, and in 1824, when Mexico declared herself independent of foreign control, the outlying districts responded with a hearty Amen!

It was not until the Santa Fé trail was in operation from the Missouri River, about 1840, that the country began to assume promising signs of activity. The war between the United States and Mexico infused additional energy and new blood into the Southwest, and since that time the public school, the newspaper, the railway and the telegraph and telephone have wrought wonders in places so remote from large centers of population as to seem almost in another world. The habits, the thoughts, and the customs of the early settlers of New Mexico were in a striking degree different from those of a large part of the United States, but the railway has wrought a peaceful revolution, and as human nature in the final analysis is the same everywhere, the leavening process has been steadily at work and some of the best examples of American citizenship to be found anywhere are now to be met with in New Mexico.

Solomon Luna was born at Los Lunas October 18, 1858. His father was born on the same spot. The elder Luna was a farmer and a ranchman, a politician and an Indian fighter, whose name is held in respectful memory by many Indians now living. It was Luna who conducted a sheep herd across the deserts of New Mexico and Arizona in 1855, and, to the astonishment of his friends, reached California in safety, where he disposed of the herd at a profit. This was regarded as a phenomenal performance in those days, as the Apaches were hostile for 500 miles along the southern overland trail, and scores of caravans had been wiped out of existence by the unrelenting foes of the white man. Encouraged by the success of his venture, a second flock of sheep was assembled by Mr. Luna and started on the trail under one of his sons. The entire flock was lost, and the herders and guards were glad indeed to escape with their lives. The elder Luna was a trader upon the Santa Fé trail and was a man of wide acquaintance and remarkable energy. He was an advocate of education, and gave his children advantage of the best opportunities available, although his finances were sadly depleted by ravages of the Indians upon his flocks. The depredations were kept up until some time after the Civil War, when the robbing bands were finally subdued and placed upon Government reservations.

As stated above, through the agency of the Santa Fé trail a new element of civilization was introduced into New Mexico, and parents of the wealthier families recognized the advantages of educating their children in established institutions of learning in the United States. St. Louis was one of the favorite centers, and many of the boys and girls were sent 1,500 miles by wagon or by ambulance and by steamboat on the Missouri River to the rising metropolis of the Mississippi Valley. Thither came Solomon Luna. Although only eleven years of age when he crossed the plains, the trip made a lasting impression upon his mind, and is remembered by him as one of the most interesting experiences of his life. He spent four years in attendance at St. Louis University.

At fifteen years of age he was recalled. His father was now too old to perform his duties in charge of the ranch, and Solomon soon found himself at the head of the business affairs of the family, including the charge of 15,000 sheep. Having been reared in the mountains and accustomed to handling sheep, he soon developed a capacity as a sheep man, although he has also raised many cattle and horses. His chief interest has centered in sheep, and his flocks now number 80,000, of which 50,000 are bearing ewes and 30,000 are wethers. During the season of 1904 he marketed 400,000 pounds of wool. Mr. Luna is also an extensive farmer and irrigationist.

As president of the National Bank of Commerce of Albuquerque, he has shown a financial ability which gives splendid promise in years to come. For eight years past he has filled the position of president of the Sheep Sanitary Board of New Mexico. On account of the paramount importance this industry holds in the Territory, the State Sanitary Board plays a leading role, and it has accomplished a highly necessary work in the protection of the sheep interests of the Southwest. Mr. Luna is a member of the National Live Stock Association, and is Executive Committeeman of the Association for the Territory of New Mexico. He is a member of the National Sheep Growers' Association and of other organizations whose object it is to advance the permanent welfare of the live-stock industry. Few citizens of New Mexico—indeed, of any other Territory or any State of the Union—have devoted more time or ability to the public interest. The progressive views of Mr. Luna, his broad-gauge ideas upon large questions, and his liberal, patriotic spirit, have given him an influence possessed only by the natural leader. A Republican in politics, Mr. Luna has had numerous opportunities of entering the political arena, but in all cases—even when unanimously nominated for Congressional delegate from New Mexico—he declined. His taste and inclination are for private life.

In 1881 Mr. Luna was married to Miss Adelaide Otero, grand-daughter of Judge Otero, the first Territorial Judge of New Mexico after the Territory was organized. Mrs. Luna is a cousin of Governor Otero. The Otero family is one of the oldest and most respected families of the Territory.

At this point it may properly be stated that Hon. Tranquilino Luna, widely known as Territorial delegate of New Mexico to Congress, was a brother of Solomon Luna. Mr. Luna was known as one of the handsomest men ever seen in Washington City, if not in America. Captain Max Luna, nephew of Solomon Luna, was one of the promising young men of the Territory. He was a graduate of the University of Notre Dame, Indiana, and advanced with such rapidity that at twenty-five years of age he was Speaker of the Territorial House of Representatives of New Mexico. He was one of the first citizens of New Mexico to offer his services to the Government at the outbreak of the Spanish-American war. He was an officer of the Rough Riders under Colonel Theodore Roosevelt, but suddenly his career was cut short by death while in the service of his country. All history agrees that no man can present greater evidence of his devotion for any cause than to offer up his life for it. On this account the soldier has throguh all the ages been held in highest honor by mankind.

Solomon Luna is a warm advocate of statehood for New Mexico.

"New Mexico," said he, "has now a population of 210,000, and has all the qualifications in resources and law-abiding and intelligent population that should be deemed requisite for single Statehood. Our people are the most law-abiding people in America, as is shown by the court records. We have no labor strikes, and as to loyalty, honesty, and general good character New Mexico can not be surpassed. A traveler is perfectly safe, even in the districts farthest from the railways, and the people all over the Territory are hospitable and kind-hearted to a degree seldom witnessed in any other part of the world. Our Territory is naturally a grazing country and will always be a grazing country. Some parts of it are adapted for cattle, but it is essentially fitted for sheep-grazing, and we have 5,000,000 sheep in the Territory. This is our most profitable industry. Sheep-owners are learning to direct their breeeding so that their flocks may be maintained either for wool or mutton. When the price of wool is low, they can go into the market with mutton. This is one of the recent modifications of breeding that is of special interest to sheep men.

"In regard to the future of New Mexico," continued Mr. Luna, "it depends in a large measure upon the interest the general Government evinces in the construction of reservoirs for irrigating and the building of canals to convey the water to desirable localities for farming. No person can prophesy the immense benefits that may be derived from such aid as the Government is easily able to extend. This question is one of the overshadowing problems of New Mexico. Our mineral resources are incalculably rich, and construction of railways is progressing with reasonable diligence, but the application of conserved waters to the fertile lands of New Mexico will attract the immigration we need and assist us immeasurably in showing the actual possibilities of the Territory. We have more coal than Pennsylvania, and we have almost every mineral that is to be found in the Rocky Mountains. As to climate, we have every desirable variety, and the United States Government has established in New Mexico two of the greatest sanitariums in the world, where the percentages of cures in diseases of the lungs are the highest known."

Mr. Luna has for years been an interested observer of the friendly relations between the United States and Mexico, and he believes that the time will come when the two republics will be united under one flag. As he has noted, the introduction of capital from this country into Mexico has effected a revolution in many branches of industry, and each year the trend is in favor of more intimate commercial relations. It is his opinion that the agricultural portions of New Mexico are destined to attract a great deal of attention from home-seekers as lands farther East are occupied. An immense territory is awaiting to be reclaimed. The Pecos Valley, with its irrigating systems in constant operation, has proven the resources of the soil when water is scientifically applied. This valley, a few years ago known only as a grazing country, has become one of the richest agricultural districts in the United States.

The Valley of the Rio Grande, where Mr. Luna has passed the greater part of his life, is the most interesting of all parts of the Southwest. Extending north and south for 300 miles through the middle of the Territory, it has been a highway of traffic for centuries, and on account of its peculiar physical characteristics will retain that relation for all time to come. It was up the Valley of the Rio Grande that Coronado in 1541 pursued his eager search for gold, and disclosed to the world a type of civilization that is yet the wonder of the student and antiquarian. The riches of the gold placers of New Mexico aroused intense activity on the part of the early adventurers, and they impressed thousands of the natives to work in the mines. Millions of dollars were sent from these mines to Spain previous to 1680; but in one day the enslaved Pueblos revolted and overthrew their oppressors. When Coronado entered New Mexico he found the mountains and valleys occupied by a peaceable, half-civilized people, living in community houses, and engaged in pastoral and agricultural pursuits. In rude ditches they conducted water from the streams upon the fertile lands of the valleys, where the fields yielded abundant harvests of corn.

Spain gave to Mexico her language and her religion. It remained for a hardy nation from the North to infuse the distant mountain settlements with the magnetic thrill which is the sure forerunner of modern activity, and especially during the last twenty years has the impulse yielded practical results. This is shown in the flourishing mercantile business of the Territory; in the relative position of New Mexico in the live-stock world, and especially in the strides accomplished by recent application of irrigation waters upon a soil so marvelously rich that the use of fertilizers is wholly unnecessary.

Mr. Luna is of the belief that the Valley of the Rio Grande will become one of the garden-spots of the globe. The subterranean waters of this valley are apparently inexhaustible. Here water is found in four separate strata below the surface at depths of eight, twenty, forty-five and sixty-five feet, respectively. The sand or rock-layers carrying the water are from three to fifteen feet in thickness, and are continuously charged from the mountains on either side of the valley, the supply being only slightly affected by drouth. The economical raising of this water supply to the surface is the problem yet to be satisfactorily solved. That it will be accomplished is an assured fact; and when that time arrives the remarkable productiveness of the soil will make the name of New Mexico a household word in the agricultural districts of America.

The Spanish conquerors of New Mexico gave to the world the story of a vanishing race. It was a story teeming with romance and adventure and marked by violence and wrong. To-day a new volume is opening, and its inspiration comes from men like Solomon Luna, leaders of industry, whose motto is "Peace, Happiness, and Prosperity."

In the quiet valleys of New Mexico are to be seen a contented and industrious population, confident in the strength of noble purpose and in the ability of human ingenuity to solve the problems that present themselves from day to day. Ultimately they feel that in all the galaxy of the Union no star will shine with brighter lustre than the star representing the oldest civilization of the United States.

The Round-Up and Cattle Branding.

"Wholesale" Operations in Handling Range Cattle.—Origin of the Round-Up.—Magnitude of the Western Round-Up.—Its Purposes.—Primitive Round-Ups in Texas.—Individual Practices on the Range.—Neighborhood Round-Ups.—Institution of the District System.—Organization of the Round-Up.—Cowboy Diversions.—Plan of the Campaign.—Working a District.—Relations of the Range Cattleman with the Captain of the Round-Up.—Size of Herds Gathered In.—The Autocratic Cook.—Penalties for "Fooling" with Him.—The Turn-Out for Breakfast and Work.—Breaking the Organization Camp.—Scattering of the Cowboys.—Character of Their Duties.—Sweeping Up the Cattle.—Uproar of the Confused and Bawling Mass.—An Exciting Scene, but Systematic Work.—Sorting or "Cutting Out" the Herd.—Dealings with Insurgent Cattle.—The Branding Process.—Identifying the Calves.—Continuation of the Round-Up Work.—Guarding the Sorted Herds.—Hard Labor of the Cowboys.—Thoroughness of the Clean-Up.—Dangers and Minor Tragedies.—The Fall Round-Up.—Close of the Round-Up Period.—Brands and Branding.—Their Antiquity.—Early Branding of Range Stock.—Branding Mature Cattle.—Endurance of the Brand.—Great Variety of Cattle Brands.—Their Protection.—Marking the Ears of Cattle.

One of the "wholesale" operations in handling range cattle in the old days of free grass and fenceless pastures in the plains country—the old days that are so fondly called "the good" by most of the veteran stockmen of the West—was the round-up: a harvesting of cattle; a great gathering-up and a sorting-out; and a branding of beasts, young and old, that were without marks of ownership burnt into their hides. While the round-up was a proposition quite different from that of putting and driving a large herd on the trail, the two, as spectacles or pictures, were the great "companion pieces" of the range-cattle industry in the old times.

It is fitting to refer to the round-up as a thing of the past, although in some parts of the western country it lingers in emaciated form—little more than the ghost of what it used to be. The term still is in common use, but greatly extended in its application, and may be applied to almost any sort of gathering together. If a herd of cattle is to be moved from one fenced pasture to another, or if a bunch is to be driven to a railroad station for shipment, rounding-up the animals is one of the preliminaries. But the real thing was a different proceeding. The great, wide, open plains formed its true field of action, and as fences came in, it passed out.

The "round-up"—both the thing itself and the name it "went by"—was of neither Spanish-Mexican nor of western-American origin; the proposition as a whole having been transferred to the West from far east of the Mississippi. It originated many years ago in the mountain country in which Kentucky, Tennessee, North Carolina, and the two Virginias join. Much of this region is as wild and primitive, even at the present time, as it was in the years of the War of the Revolution; and there are but few sections of the older parts of the United States in which natural conditions have been so little disturbed. The people of this mountain country—a thin population—for long have allowed their cattle to run at large, making their living wherever they went. The animals were branded in regulation fashion, and periodically—usually late in the spring of each year—their owners had a round-up, a driving-in, of the scattered cattle and their offspring, the latter then being branded, and all that were not needed turned loose again. But it is not to be understood that these mountain round-ups collected many cattle, according to the ideas of western stockmen as to live-stock numbers. From an extended district, perhaps a few hundred were gathered in, many of the calves having been appropriated by wolves and other sorts of pirate beasts. These proceedings, which still go on in some parts of that country, and which, as the reader will see, are identical in purpose, if not in exact manner, with the round-up of the range country in the West, were called by these mountain people by the same name that has been made so familiar to western stockmen.

But in the West the round-up, in the period of its greatest proportions, became a matter of covering thousands of square miles and of gathering thousands of cattle by a single outfit organized for the purpose. It was not uncommon for one of these organizations to extend its operations over an area of 4,000 or 5,000 square miles, or as large as that of the State of Connecticut, before its work was finished. The famous Pecos River round-up in the spring and summer of 1885, which, however, was not of the ordinary character, but to collect the thousands of cattle that had drifted into that country during the previous winter from ranges far away, covered an area twice as large as that of Connecticut.

The round-up of the open range was developed as the cattle business was increased and extended upon the plains. It was one of the necessities that arose with the general occupation of the country by cattlemen with enlarging herds and from certain of the circumstances that attended this "crowding" of the range. Despite all that could be done by the cowboys to prevent it, more or less of the cattle from one outfit would go astray and either join those of another or wander away and lead an independent life for awhile. This was more likely to occur in winter than in any other season of the year, for in that season the men could not give the herds attention so effective as in the others. In the winter much of the cowboys' work was that of line-riding—that is, riding around the outskirts of the range to prevent, as well as they could under the circumstances, their cattle from going beyond the bounds; and often several neighboring outfits joined in a winter organization of line-riders to patrol the outer boundaries of the combination's ranges as a whole. Under such an arrangement a cowboy rode forth until he met another coming in the opposite direction and then retraced his way, the organization working practically in the same manner as that of the coast patrol of the United States Life-Saving Service. Still, with all of this, some cattle would have opportunity to cross the line and go where they pleased, until they were brought in by the drag-net of the round-up. Then there was the scattering that followed a failure to control a stampeding herd which contributed to the number of horned beasts that temporarily were leading

Scene on the Texas Range in the Early '80's.

a vagabond life. The round-up gathered in these along with the rest.

It does not appear that this practice was known in the pioneer years of the range-cattle industry—in Texas before the Civil War—that is, not as it became known in after-times. However, there are some accounts of neighbor cattlemen in Texas in that period getting together occasionally to look over each others' herds for stray animals, and this implies other work also than that of the round-up. Their cattle were branded then as now, and there was inevitably more or less straying from every herd, some of the wanderers joining other herds, while some escaped from all restraint. But at most, these were small neighborhood affairs which did not include a thoroughly organized systematic search of a large extent of country and of an equally systematic identification of the ownership of all of the cattle so collected, that were the purposes of the great round-up of the open range in later years.

Furthermore there was less need for this practice in the earlier times. For some years after the Civil War, ranch outfits were few in number in proportion to the immense expanse of grazing land that was then open to them, and usually were many miles apart. Each stockman had a large range to his exclusive use, and was very diligent in his efforts to keep his cattle within its bounds in all seasons of the year; and, when necessary, conducted a round-up on his own account of the stock on his range, without coöperation with his neighbors. If he had any cattle of another's among his own, as he usually did, it was his duty upon honor to turn them over to their owner, which was almost invariably done. All unbranded stock in the collection was assumed to be his, and so he burnt his brand on it. If settlers began to trouble him, he might move his entire outfit farther into the virgin country, and there go on as before.

But as ranches and herds became more numerous, as the country filled up with stockmen, and ranges began to overlap their borders, the opportunities for cattle of neighboring herds to intermingle were many and easy. Therefore, the stockmen had to adopt the coöperative plan and under it work each others' ranges to gather up in one operation and sort out the cattle upon them—in other words, they adopted the round-up system, in the broad sense of the term. Its general methods varied in details in different sections and even in localities, but in the main they were much the same everywhere.

There were two round-ups each year—one in the spring, the other in the fall; the former, often called the "calf round-up," usually being the more important. For some years after the general adoption of this coöperative system the cattlemen of a given locality joined in working over the ranges of those who participated, sometimes covering more and sometimes less extent of country, according to the number of owners represented in the organization. In 1877 the definite district system was instituted by cattlemen of western Texas, who met in that year at the town of Graham and in convention adopted general rules for the conduct of organized round-ups and districted their part of the State. Moreover, it was at this meeting that the first great organization of Texas stockmen was effected. After State and Territorial Associations of cattlemen came into general fashion, these organizations divided the entire range country of the State or Territory into districts that were recognized by all of the stockmen.

In the spring, for example, the cattlemen of a district met and chose some experienced cowman to be the general superintendent of the approaching district round-up and agreed upon the day when the work should begin. The superintendent, who was commonly known as the "round-up captain" or "round-up boss," was a man of importance, for he had absolute command of the work in his district during the year, that of the fall as well as for that of the spring; and was paid good wages, usually $5.00 per day. In the southerly parts of the cattle country the spring round-up began in May, after the grass had become good and the calves large enough to bear branding; generally, past the middle of the month. In the central and the northern districts it was later—in the corresponding period of June in the northern country.

Each cattleman in the district furnished men and bore a share of the general expense of the round-up in proportion to the number of cattle he owned, roughly estimated; and also a sufficient number of horses for his men, usually eight or ten for each, every outfit's horses being kept in a herd by themselves under the care of one or more "horse-wranglers," who did nothing else—though that was quite enough, for the horse-herd or "cavvie yard" required attention day and night to keep it together and in readiness for demands for fresh mounts.

Two or three days before the date fixed for beginning the work, the various round-up outfits that were to join in clearing up the district assembled at one of the ranches in it that previously had been designated. In a large district this gathering might include anywhere from 250 to 300 men, and, as there were from eight to ten horses to each of these, and mess-wagons and camping plunder in proportion, the aggregation was remarkable, both for size and character; not unlike that of a hasty mobilization of a small army to meet a sudden emergency.

Only the larger ranches sent mess, or, as they were commonly called, "chuck," wagons, which were drawn by teams of four or six horses or mules; the expense of maintaining a wagon in the field being unduly great for the smaller establishments in the district. While the latter must furnish their quota of cowboys and horses for their use, provisions were made for these men messing with the larger outfits. Usually also each of the large ranches in the borders of adjoining districts was represented by a few of its men, for there was nothing to prevent their cattle from wandering out of their district into any other upon which it bordered. These outside men brought their horses, but messed with one of the district chuck wagons. In the earlier part of the round-up period, no tents or other kinds of shelter were provided for the men; rolled in their blankets they slept on the ground in the open, though the cook could take shelter in stormy weather in his canvas-covered chuck wagon—a place of refuge that he closed arbitrarily to all others. But in later times tents for the men were used, and these gave the organized outfit of a district round-up when in camp a still stronger resemblance to a military enterprise.

At these foregatherings, every phase and shade of character in cowboy make-up was present and manifested itself, excepting such as those that frequently came to the surface when the boys were "in town" and had "turned loose." Of the latter there was nothing. The round-up was strictly a business proposition, and the few days that preceded active work were, in the main, devoted to organization and other preparations. Still, the gathering was largely in the nature of a reunion, as it brought together a large number of cow-folks from over a wide stretch of country, most of whom had some acquaintance with or knowledge of each other. During the day the men were engaged either in the general preparations or in overhauling their personal working outfits—especially their horse-gear—to make sure that everything was in good working order.

Cutting Out a Cow and Calf
(*From Hough's "Story of the Cowboy."*)

But in the evenings of these few preliminary days, the mess-camps were made lively and entertaining places. The quieter of the men turned to cards or other games. Among the others there was much rough frolicking and "horse-play." A favorite form of entertainment was the "kangaroo court," by which cowboys were tried upon ridiculous and often unsavory charges —and invariably found guilty. Various penalties were imposed and impartially executed, too. It might be that the "defendant" was sentenced to be thrown into the creek near by to "wash his sins away"; or to ride bareback a wild, sleek-coated young steer to be picked out of the first bunch of cattle rounded ud; or to ride, without saddle, some notorious bucking horse, the presence of which in the outfit already had become known, and concerning the abilities of which in the bucking line some curiosity had been aroused; and so on according to the fertility of the court's resources of mind. However, the court always could be induced to take a lenient view of the case if the defendant gave up a good share of his precious tobacco with which he had provided himself for the round-up. Still this was a loss more in form than reality, for the culprit knew that his comrades would help him out as long as they had any to divide and that he probably would in this way get back much if not all of his own. This rough play was given and taken in the utmost good nature and as things that properly belonged to the occasion; and beside these more formal affairs, exceedingly "practical jokes" were very popular, and, as with the court penalties, the victims never discredited themselves by losing temper, but waited for "a chance to get even." Occasionally a strong-lunged brother would break forth in song, dealing with the deeds of some hero of the range, or with adventures on the trail, or with the charms and accomplishments of some imaginary "dulce," or in a "cow-puncher's lament." Whatever the burden of his song, and however harshly and discordantly it might be sung, he was heard without interruption, with more than a mere show of interest, and usually with the polite gravity of manner that so often was manifested by these men of the range and that seemed at variance with many of their antic outbursts. A good story-teller was a favorite, provided his stories were short, much to the "point," and with "ginger" rather generously mixed into them.

In the meantime the ranch-owners and the captains of the round-up were engaged with more serious matters. The captain selected from among the cowboys he knew to be of good judgment, as many lieutenants as he thought he needed. These subalterns would be in command of parties of cowboys that were to scour the range thoroughly in search of vagrant cattle as well as of the large bunches. The plan of the campaign that was to cover a broad extent of wild country was carefully worked out with a view of producing the most satisfactory results within the allotted time. This required a thorough knowledge of the topography of the district and of the difficulties the various bands of cowboys might and probably would encounter, and of the localities in which a range round-up might better be made; considerations of grass and water always being in the forefront of these calculations.

A district was worked by ranges successively, each owner's range was known by a number, and each was "cleaned up" in regular rotation. It usually took, according to the size of the individual ranges, from three to six or eight days to work over a range, and at the finish it was pretty safe to assume that the round-up dragnet had left little or nothing behind. When the work was being done on any given range, its owner or manager had general charge, but even then he was second in authority to the captain of the round-up. He could indicate in what part of his range the work should begin and where it would be better to end it, but beyond that the captain was in command. After the cattle on his range had been brought together their owner or manager was entitled to make the first "cut" of the round-up—that is, to make the first division of the collected mob of excited and apprehensive cattle. Anything unusual, out of the ordinary, always excited the old-style range stock, and therefore the round-up also was a stir-up for them. As to the details in the work of rounding-up the cattle there were no hard and fast rules, these varying according to circumstances. Sometimes from 4,000 to 5,000 head of cattle were gathered into one bunch, but usually not more than half that number, for, while it might be better occasionally to drive in all the cattle from a large area to a good working ground, ordinarily better progress was made with smaller herds and more frequent changes of location of the round-up camp.

On the evening preceding the beginning of work, the plan of which had been perfected by the owners and the captain, careful instructions were given to the latter's lieutenants and to the "boss" of each outfit, who in turn gave them to the men under him. On this evening there was less skylarking, horse-playing, and so forth among the boys, nor did it last long, for early next morning all hands were to begin a long day of hard work. So the camp went to sleep early.

Before daylight the cooks, who were patterns of early rising, "rousted out" everybody for breakfast, and the rules permitted no lagging in response to their calls. The cook of a cow outfit, whether in the ranch house, on the trail, or on the range, usually was an autocrat within his jurisdiction, and even the most reckless cowboy in the bunch was very shy about "fooling with *him*." Not that the cook was really a "better man," but he had resources for retaliating, "getting even," that were not available to the "cow-puncher." A "feller's" coffee suddenly might betray remarkable weakness, an "accident" might work a shortage in grub or a deterioration in its quality, and so on. Within a few minutes after the cooks' lusty calls every man was at the chuck wagons with a tin plate, tin cup, knife and fork, taking most liberal rations of meat, bread, and blackly-strong coffee; already having rolled up the blankets and gathered up personal belongings.

After breakfast the camp presented a scene of lively activity that seemed like aimless confusion, yet everything was going on sytematically as well as vigorously. The wranglers bring in the horse-herds on a run. Each cowboy ropes a mount for his morning's work, and a fair percentage of the beasts plunge and paw in protest against being drafted. Saddling is quickly done, and everything else being ready, the cavalcade swings out at a gallop over the prairie to begin the first of the drives.

The respected cooks in the organization have not been idle while their subjects were getting ready for the business of the day. They have stowed their pots, pans, kettles, and tinware in the chuck wagons, and have loaded the blankets and other camp plunder. They, too, were likely to have some trouble with their motive power that objects to being harnessed and handled. But with the help of a cowboy or two and the peculiar brand of profanity for which all range cooks were distinguished, these difficulties soon were overcome. Guided by a man detailed for the purpose, the wagons moved out for the next camping-place, which already had been designated. The wranglers follow with the horse-herds, and so the old camp-ground is soon deserted to the coyotes that are waiting to sneak in to pick up the scraps.

Ready for Work to Begin.

As the troop of cowboys rode over the range, it spread out, dividing into small parties, each under its boss; and presently these scattered until its men were separated by distances that varied according to the topography of the country. Each man had to hunt out all of the cattle on the ground over which he rode, and if it were much broken, careful searching for scattered individuals or small groups was necessary. A herd of several thousand cattle distributed over fifteen or twenty square miles of rolling plains does not make a very impressive showing to the eye, for many of them will be hidden from view by the rolls in the land. But the round-up cowboys gather them up, one by one, or by twos and threes, and by small bunches, driving them ahead to the common meeting-place that previously had been selected, and near which the chuck wagons and the cooks would be found when they were wanted. As the animals are disturbed in their feeding and put in motion, their gregarious instincts lead them to form into strings and bunches, all headed towards the assembly-ground—steers, cows, yearlings, and calves moving onward, surprised and uneasy. While the country was swept pretty clean of cattle by these operations, a few individuals, concealed in ravines or the like, perhaps had been overlooked but the chances were nine to one that these would be picked up by the fall round-up if they were not brought into the range herd in the meantime in the ordinary course of cowboy work. The cowman always was on the alert for strays and tramps that wore horns.

Later in the day, perhaps by noon, the drive has been finished, and from 2,000 to 4,000 head of cattle are thrown into one herd at the chosen meeting-place—a dusty, milling, confused, and bawling mass of excited beasts. Rebellious steers are shaking their heads and making threatening demonstrations with their horns; the half-grown are trying to hide themselves by pushing their way toward the center of the horde; mother cows are distracted by their separation from their offspring; and bleating calves are trying to make themselves heard by their mothers in the uproar. The cowboys ride 'round and 'round the mass, driving back the more enterprising beasts determined to escape from a situation so disturbing to their peace of mind. The scene was an exciting one, but the disorder and confusion were not really so great as they appeared to be. The men systematically were doing their work in keeping the cattle together and in quieting them in preparation for the next stage of the proceedings.

This was the sorting-out of the shoal that had been brought in by the drag-net of the day's drive, separating the animals into minor herds according to the brands they bore, branding the calves, and also doing the same thing for older unbranded animals found in the collection. It was the rule of the round-up that all of the last-named class should become the property and receive the brand of the cattleman upon whose range they had been found.

The sorting or, in round-up parlance, the "cutting out," called for bold and skilful horsemanship and involved some personal danger to the cowboy; but these were nowhere near the perils he chanced in his efforts to bring a stampeding herd under control. "Cutting out" merely was the separation, one by one, or by more, if this came handy, of the animals in the heterogeneous mass and putting them into different groups a quarter-mile or so distant, according to their brands. But very frequently an insurgent steer, a frisky young heifer, or a cow, worried because she could not find her calf, would break back toward the herd of the drive, turning this way and that and dodging with wonderful quickness The cow-pony used at a round-up previously had proved his fitness for this as well as the other kinds of work required of him on such occasions and showed himself more than a match for these trouble-makers in nimbleness of foot and quickness of action. But such doings called for great steadiness and alertness in the man on his back.

The general authority of the captain of the round-up prevailed over the work of cutting out and the branding. A number of men in which each outfit was represented, was detailed to hold the general herd together. The man on whose range the work was being done, made the first cut of the herd, and others followed in rotation; then as many cowboys as could work without interfering with each other, began their flying performances. As the branded cattle were separated, they were thrown into herds of their own brands, the larger of these being, of course, the herd of the range on which the drive had been made. After the work of cutting out had been completed, these herds were driven a greater distance apart—a mile or more, and the branding of the calves commenced. The calves were roped and pulled to the branders as the cutting out was in progress, and the organization for this purpose was very perfect. Some men kept the fire going and the irons in it, while more were detailed to hold the calves and to apply the hissing hot brands. Expert ropers rode into the herd and came out dragging a calf along on the ground to the branders, who quickly did the rest. So rapidly was this work done that it took a fair-sized outfit but an hour or so to dispose of several hundred calves. The calf was identified by its mother's brand, and, while calves often failed to recognize their mothers in the confusion and hurly-burly of the time, it was a rare thing for a cow not to know her calf. When the ropers rode into the herd they took careful note of the brand on the cows that had calves at their sides, and as the men dragged the youngsters up to the branders each called out the brand of the cow whose calf he had trailing at the end of his rope. As, with but few exceptions, these were the well-known brands of the cattlemen of the district or of those whose ranges were on its borders, and whose brands were among the collection of irons provided for the purposes of the round-up. But occasionally a wandering mother from afar turned up in the collection, and if her brand was not to be found in the assortment, her calf would be left for later attention. If a calf were lost from its mother, as occasionally happened, it was left until it found her, if it could, and was branded at a later time, perhaps the next day. Sometimes the cattle of each brand were separated into respective herds, the mother cows with their calves as well as the rest, and then each outfit did its own branding, the methods being practically the same, but with less apparent hurry and commotion than when all worked together.

An Early Cow Camp in the Arkansas Valley.

The branding of a drive having been finished, the work of the first day was repeated daily until the range on which it had begun was "cleaned up," when the round-up outfit moved to the next range. But from the first day's operations, the several herds that had been found, to which additions had been made daily, were kept separate in charge of men from the ranges to which the stock belonged. They were guarded day and night to keep them from scattering, and especially to prevent them stampeding and making a new mix-up. The work on the first range being completed, the cattle belonging to it, now gathered into one herd, each creature in which bore the brand of the owner of that range, were left behind, but the other but smaller herds were held together and driven into the second range, where their separation and guarding were continued until that range was cleaned up, from which they received further additions to their numbers.

After the first day, when work was pressing, often there were what was known as the "night drive." Small squads of men, consisting of one or more from each outfit, were sent ahead ten or fifteen miles from the mess-wagons to camp on their own hook, and very early in the morning begin driving all the cattle in the country around them in the direction of the round-up ground designated for the next day. These men, who probably had worked hard all the day before, took with them enough "cold grub" to last until they fell in with the wagons. Perhaps they rode until near midnight, then slept on the ground a few hours, and were up and in the saddle before the break of day for another long spell of hard labor. But the men at the regular camp fared little better, as they had to serve from two to four hours standing night-guard around the herds that had passed the cutting out and branding, which, as they grew larger each day, required constant attention from an increasing number of men. This in turn soon called for a greater number of hours of work for each man.

So the round-up went on over one range after another until the last in the district had been worked and practically the cattle in it had been gathered up, sorted out, and left with their respective owners. The "strays"—that is, animals that had wandered in from beyond the confines of the district, had been cared for by the men representing the adjoining outside wagons and driven back to their home pastures. Simultaneously the same kind of work had been going on in the other districts in the same general region of country, and when the round-up season closed, each stockman knew the number by which his cattle had been increased by natural processes, and also the number of older ones that had been gathered in by the raking over of his range. A tally carefully was kept of each animal by its brand as it was cut out of the drive-herd and of each calf as it was branded.

It was a time to which all cowmen looked forward with interest and even eagerness. Beside being a harvest-time, it was, as we have remarked, one of reunion and of reviving and cultivating acquaintance and of cementing friendships. But it also was a time of hard work and much of it. The spirit in which the great semi-annual round-ups were conducted was that of fairness, of seeing that every man got his own, and of hearty coöperation to that end.

The work of the round-up was not without its dangers. Either the burrow-hole of a prairie-"dog," a false step or turn, or a yearling dashing in front of a running horse, may have been the cause of a tragedy that resulted in a grave in the prairie or near some ranch-house of the district; or it may have brought no worse than some bruised bodies, or a broken arm or leg. Such things were likely to happen, and in avoiding their causes the best rider had no advantage over the novice. They were among the well-known conditions under which he did his work, and the cowboy "took chances" with them and gave them no further concern.

In the earlier-time round-ups, there was much reckless crowding and jamming of the cattle, and added to this were the consequences of the wildness of the range-stock of that period. In the round-up of a day's drive it was not uncommon for yearlings to be trampled to death by the mob and even two-year-olds, while calves by scores had their bodies ground into the earth. A round-up in the old times also left many of the calves to perish by starvation , if considerate wolves or coyotes did not sooner put them out of their misery. Frequently the helpless little creatures, depending for their sustenance entirely upon their mothers' milk, were left behind in the drives, unknown and overlooked. Moreover, during the turmoil and confusion of the assembly at the cutting-out ground, many calves became widely separated from their mothers, and after these had been cut out and driven to the various herds to which they belonged, there were few chances of a reunion of mother and calf. Therefore, the bleating, pitiable little creatures that had not yet learned to eat grass had to be left to their fate. This usually was not long delayed. A few days of racking thirst ended them, if the wolves permitted them to live so long. In after-times the calves were cared for more attentively, and these minor tragedies became less and less destructive.

The fall round-up was conducted along much the same lines as that of the earlier part of the year, and therefore whatever might be said of it largely would be a repetition of what has been outlined in the foregoing pages. Usually the work was done with more deliberation, for the animals then were heavier in flesh and fat, and many beeves ready for the market were cut out and sent away for shipment. Late calves and survivors of those that had been overlooked in the spring were branded, and the herds generally were overhauled before being turned loose for the winter.

The round-up system, in the broad sense, did not have a long career on the cattle-ranges of the West; scarcely more than ten years. After the middle '80's of the nineteenth century wire fences had become so common on the plains pastures that they made extensive hunts, large drives, and great round-ups impossible, even had they been necessary. Round-ups in the old fashion and wire fences were contradictory terms. On the cattle-ranches of the West we still have round-ups, and on some of the larger ones they are of rather impressive proportions, but the greatest of them is not comparable with those of the old free-range days, when a fence was regarded as a desecration of the wild pasture-lands. Moreover, none of these is a community undertaking as of yore, but each is an individual affair, limited in its extent by the outfit's line-fences, however near or far the fences may be.

Branding still goes on, because need for it still exists. As the fences are not always and everywhere cow-proof, cattle still find their way into the pastures of neighboring ranches, or get out on a road and wander off. The brand, as of old, identifies them and proclaims their ownership.

Fences are common wherever one goes over the land in the West that once was free and open to the stockmen. Generally speaking, they are widely-established institutions in the old range country. Only here and there, in such great divisions as Montana, Wyoming, and Arizona, may we still find an immense fenceless expanse with cattle grazing upon it that reveals to us conditions of country that were common a generation ago over an empire as large as that of civilized Europe.

As we set forth in an early chapter of this volume, the branding of cattle for precisely the same purpose as that of our stockmen is an ancient practice. How old it is we do not know. But we have records of its prevalence among the Egyptians five or six thousand years ago. Its origin no doubt is as many thousand years further back. Men early must have learned that a burn sinking deep into or through the skin of a living creature leaves an indelible scar. Records of branding almost as old as those of Egypt tell us that in other parts of the Old World—parts of Asia, prisoners of war, and also slaves by birth, were branded with a hot iron on the forehead, or the cheek, or on the palm of the hand, and thus permanently disfigured by the ownership mark of their captors or their owners, as the case might be.

A Busy Day at the Corral.

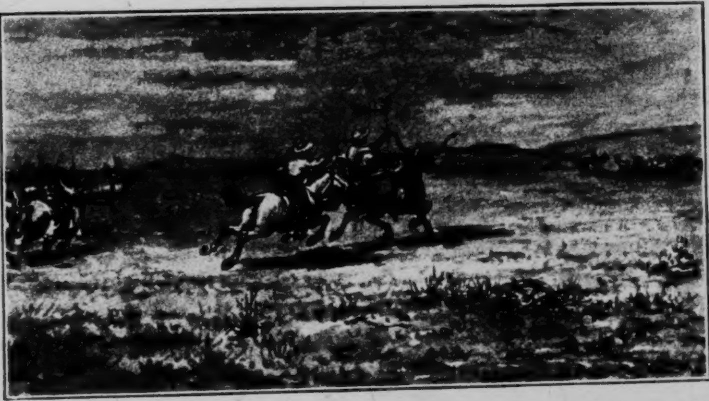
The branding of range-cattle and horses, too, began when the range-cattle business began. The Spanish-Mexicans so marked their cattle from early times, and the Texans practiced it from long before our Civil War. In that pioneer period the brands were made with an iron bar or rod curved at one end, with which was formed what was called a "running brand." With this simple tool—the curved end being heated red hot—the brander wrote the brand much after the free and fluent style in which shipping-clerks mark boxes. This slow and cruel method has been almost entirely discontinued, but in some parts of the West it is still followed by "small" cattlemen. It can always be recognized by the crudeness in form of the letter or rude design that proclaims the ownership of the cattle into the hides of which it was burned. Later came branding-irons that imprinted a letter or perhaps the two or more initials of the owner, or a symbol, at one and a quick application. Necessity soon made this marking of cattle a custom, custom became common law, and eventually common law was crystallized into the form of statutory law. The scar-formed letter or letters, design, or symbol, or a combination of them, spelled the owner's title-deed to the beast that carried them. The animal might mingle with the cattle of others or wander far away, but wherever it went or however long it was gone, it was still the property of the man whose mark it bore, subject only to lawful charges for its keeping. But among range stockmen the latter was, as it still is, waived. Each took care of the other's estrays as he did of his own cattle, and respect for the brand was the foundation creed of the range.

As a rule range cattle were branded in their calfhood, the exceptions being of stock brought in from other parts of the country and the comparatively small number of natives that had managed by hook or crook to escape this "baptism of fire" earlier in their careers. From the introduction of the organized round-up system, calf-branding, as we have seen on preceding pages, was made an important part of the work; nearly all of the range calves born in the round-up period then receiving their marks of ownership. Branding calves, even in the rough and rapid methods of the round-up, is a simple and easy matter; but with a full-grown, lusty steer or an excitable cow it is less so. With one of the old-style range-steers, the proceedings were much enlivened by his protests against the indignity. First, a cowboy roped him by one of his hind legs, and after tightening the rope rode around him once or twice, entangling his other legs, and then by a quick jerk which the pony knew how to make, threw the steer upon his side. Another mounted cowboy then roped him by the horns and drew off until the taut line stretched his neck full length, while the first boy noosed his rope around the other hind leg also and drew off in the opposite direction until both hind legs were stretched out, the ropes of the two being turned around the saddle-horns, and the two ponies bracing themselves against the struggles of the prostrate beast. Then, with two or three cowboys "sitting upon" him, the steer had the red-hot iron applied to him, and within a minute afterward was lumbering off, shaking his head with indignation and resentment.

A brand burned to a sufficient depth will endure in legible form as long as the animal lives and will grow with its growth; but if not burned deep it will be plain only until the animal sheds its hair in the next spring. Trail-cattle were given a lightly-burned additional mark called the "road-brand," which usually was a single letter or a simple figure, scarcely more than hair-deep. This was for the purpose of specially identifying with the trail-herd such animals as might become detached from it while on the way. The owner's brand was placed on any side-part of the animal's body that struck his fancy. Some branded on the hip, others on the shoulder, still others broadside over the ribs. The brands varied much in size, some being from a foot to eighteen inches in the longer dimension on a full-grown animal, which could be seen from afar. While the application of the hot iron was, of course, very painful, the animals soon recovered from its effects. Often a steer made no outcry, but usually a cow would utter a bawl. Calves showed more sensitiveness and bleated pitiably. Generally the mature animals, beyond licking their wounds, manifested no great discomfort from them after a few hours, but the calves frequently showed distress for a day or two. Good judgment was necessary in the application of the iron. If the burn were too shallow the brand would not be permanent; if too deep it might result in an open wound in which ugly conditions were likely to develop. While the foregoing is expressed in the past tense, the branding of cattle in the western stock country is just as common a practice now as it ever was, although the more imperative of the conditions that made it a necessity in former times have passed away.

In the earlier times cattle brands generally were letters or some design or symbol of simple form. But as the number of range-stockmen increased the brands became more elaborate and complex. An immense amount of ingenuity has been applied by our cattlemen in devising brands, and some of the results have been remarkable for originality as well as for obscurity of significance. With a "crowded" range there was not only a desire, but a necessity for "getting up something new." Circles and parts of circles, squares, triangles, diamonds, bars in combination with letters, monograms, hieroglyphs, and diagrams for which no name ever was heard; stars and crescents, separate and in combination with the others; queer tangled devices, and emblematic figures, out of which no man could make any definite meaning; and so on. The statement that has often been made by various writers that brands "unmeaning and untranslatable to an outsider were perfectly plain to the cowboy" is rubbish. Cowboys, as well as owners or managers of range outfits, usually knew the brands of all of their neighbors for many miles around them. But the brand of a cattleman of whom they had never heard and which they had never seen until a tramp cow with the device in her hide appeared on their range, was as "unmeaning and untranslatable" to them as to anybody else. They could see that the cow was branded, but they could not tell whence she came nor to whom she belonged. To learn her ownership they would have to make inquiries and investigations to find out for what distant outfit this particular arrangement of letters and so forth stood. It was a rare brand that made ownership "plain," and it was only by actual knowledge of a certain letter, figure, or combination being the brand of a certain outfit with which they were acquainted, that cowmen could tell anything about it. Perhaps as striking a letter-brand as ever was seen on the range was that of a cattleman in the San Antonio region in Texas some thirty years ago. On the sides of his cattle he stamped in sixteen-inch letters his initials—"H. E. L. L."

Besides the indelible brands put on them, most range cattle have for many years been additionally marked by cutting their ears as farmers usually mark their hogs. This is done by slitting the ears or by cutting bits out of them, or by cropping or slicing off pieces. Considering the working limitations of this process, the number of the distinguishable marks that can be produced is more remarkable than the variety of the brands; for it is astonishing to see how many different ear-marks can be made by combinations of slits, bits, and crops.



An Incident of the Round-Up.

Ear-marking, like branding, is an old, old practice, and in long-ago times was applied to men as well as to beasts. In Exodus XXI: 2, 5 and 6 we are told that "If thou buy an Hebrew servant, six years he shall serve; and in the seventh he shall go out free for nothing. * * * And if the servant [slave] shall plainly say, I love my master, my wife, and my children; I will not go out free: then his master shall bring him unto the judges; he shall also bring him unto the door, or unto the door post; and his master shall bore his ear through with an awl; and he shall serve him forever." So we have the familiar expression, "I know him by his ear-marks."

The stockman has a property right in his brand and ear-mark. Early in the history of the cattle business on the plains it became necessary specifically to protect this right by law. To avoid confusion by duplication of brands and marks and to secure them to their originator or "inventor," the range States and Territories early provided by law for the registration of brands and marks by a public officer, whose records of them are accessible to every one. The record, beside containing the name of the claimant, date, and location, has a description of the brand and the mark, and usually also an illustration or sketch of each. In some States a county officer is the Registrar of Brands in addition to his other duties, while in others there is a Brand Bureau connected with one of the departments of the State government.

But, with all their branding and marking and registering, our western cattlemen never have been able entirely to baffle that unique product of the range country, the "cattle-rustler," the land pirate of the plains of the West. He appeared on the scene in early times and has remained ever since. He has no respect for a brand nor for the thing or theory for which it stands. But as we shall consider him in a later of this series of stories, we need not here give further attention to his case. We have mentioned him because of his close association in the minds of stockmen with brands that suddenly and strangely are made to change their form on living beasts of value.

It may not be necessary to call the reader's attention to the fact that the principle, the motives, underlying the matters that we have dealt with on these pages—the round-up and the branding and marking of cattle—are those of equity, of fairness between man and man, of securing to each that which is his just due. In the range-cattle business, more so in the past than now, the opportunities for acquiring other men's property by dishonest ways and means probably have been greater, as well as easier, than ever existed in any other civilized country. They were so numerous and so easy under many circumstances as to constitute standing temptations to dishonorable acts with comparative safety. Not by the methods of the cattle-rustler, but by various others less flagrant. But among the great body of range stockmen the cardinal rule is and has been from the beginning to guard a neighbor's property and to protect and care for it when necessary and to see that it went back to him. It is doubtful whether among any other class of men or in any other calling this principle and these motives have been raised to a higher plane and there maintained than that upon which the stock-raisers of the West deal with each other and have done for many years.

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W. C. Green

Colonel William C. Greene.

The man who, in the period of five years, has acquired 6,000,000 acres of land, launched one of the greatest cattle plants of the United States, developed copper and gold properties until their name is a household word, and founded a city which has grown to 20,000 inhabitants—such a man has earned a permanent position in the history of America.

Colonel William Cornell Greene has accomplished the work named above. In addition, he is a builder of railroads, a seer of the business world who has discovered magnificent possibilities where others beheld a desert, and upon Wall Street he has shown an ability which commands the respect of the most acute and long-trained financial operators of the United States.

The story sounds like a fairy tale, and yet it is true. It is literally a development from the cow camp to the palace, an astonishing succession of victories, and a complete refutation of the claim so often made, that man is controlled by circumstances.

In the case of Colonel Greene the marvelous results are clearly the effect of the character of the individual himself. He controlled circumstances and wrought out his own destiny. Through the energizing force of a prophetic vision he gathered together the agencies necessary for the accomplishment of vast projects. Difficulties vanished and the vision blossomed into reality.

Colonel Greene, at fifty-three years of age, is a broad-shouldered blue-eyed man of striking individuality, with the tinge of the open range upon his face, and a warm clasp of the hand, indicating sincerity and generosity. Friends who have watched his course in large financial affairs declare that the secret of his winning is his frankness. One of his favorite mottoes is, "In business always speak the truth."

For many years a daring horseback rider and a revolver and rifle shot that has seldom been equaled on the border, he now finds diversion in holding the reins while his favorite trotter, Arizona, is speeding a half-mile on the New York course in 59½ seconds. A few days later the owner of the horse may be met with in camp at the ranch, 2,000 miles away, sleeping in a blanket on the ground or traveling during the day with the "outfit." His love of out-door life drew him to the range while he was in his teen . His love of nature is one of his most prominent traits.

Destiny pointed to the Southwest as the theatre of industrial exploitation upon a magnificent scale, and Colonel Greene proved to possess the qualities necessary for leadership. He is a native of New York, and was born August 26, 1851. His grand father and great-grandfather were iron men, and his father lost his life by accident in a copper mine of the Lake Superior region. Mining seems to have been an inherited instinct in the family.

W. C. Greene left home when he was eighteen years of age and went to Montana, where he became a contractor, selling railroad ties to the Northern Pacific Railway. After five years in the Rocky Mountains he embarked in the range-cattle business of West Texas, locating on the Clear Fork of the Brazos River. It proved to be one of the most dangerous spots in Texas, and the white man who held his position was obliged to fight for it. The Indians stole his horses and cattle-rustlers inflicted such heavy losses on the cattle herds that Mr. Greene was obliged to retire for a time from independent operations, and hired out to one of his neighbors at $15.00 a month. In 1882 he moved to Arizona, and mined for a short time in the northern part of the Territory. He then took up his residence near the southern border of Arizona and engaged in cattle-raising.

During these years he took part in many dangerous encounters with Indians and outlaws, and became widely known as one of the coolest heads and best shots in Arizona. Five times he was wounded in fighting with Indians, but never seriously. Desperate white men who infested the Southwest and lived off the cattle herds were fully as dangerous as the Indians.

One day a bad character who had a personal grudge against Mr. Greene came suddenly upon him, exclaiming, as he rushed forward and raised his revolver, "I've got you now, and I'm going to kill you!"

Before the man's finger could press the trigger, a bullet from the revolver of Mr. Greene carried the finger away.

Arizona, the Favorite Horse of Colonel Greene.

On another occasion Mr. Greene and two companions were riding into a defile of the mountains when one of the riders remarked, "Boys, the Indians are going to jump us here!"

Scarcely were the words out of his mouth when bullets began to fly, and he was struck by eight bullets and fell dead upon the ground. Mr. Greene was wounded twice in the fight, but he killed two Indians and escaped with his life.

Under these exciting circumstances it required men of courage and oft times reckless daring to sustain their position on the frontier. Always a leader in the rough society in which he was placed, Colonel Greene met every exigency with perfect confidence that his life was safe, taking chances that the ordinary man would not have dared to face. He lived in the midst of danger until he almost became unconscious of it. It was men of this temperament who could endure the strain. In his cow-hunting expeditions he traveled extensively in Arizona and Mexico, and gained an intimate knowledge not only of the water and grass supply, but of the mineral possibilities.

While prospecting for mineral, he became convinced of the existence of a great copper deposit on the Mexican side of the line, in the State of Sonora. This deposit had been worked in earlier times by native miners, but the Indians drove the miners away. The dream of a great mining camp at Cananea entered the mind of Colonel Greene twenty years ago. It required fifteen years for the first tangible realization. During this time Colonel Greene had several options upon the property, and presented his plans to some of the greatest copper companies of the United States. The copper magnates, following the advice of their mining experts who made personal examinations of the district, turned down the applications, but Colonel Greene never allowed himself for one hour to yield to despondency. Supplying himself with means from his range business, he faithfully prosecuted development, and in 1899 the great work at Cananea was fairly started.

To-day Cananea is one of the most active and flourishing mining camps of the world. Located upon a mountain mésa sloping toward the San Pedro River, at an elevation of more than a mile above the level of the sea, the eye is here greeted with an inspiring view of a young and growing city with electric lights, telephone, telegraph, electric street railway, waterworks, mercantile establishments, schools, churches, and all the accessories of twentieth century civilization.

The Greene Consolidated Copper Company and its allied interest at Cananea carry 6,000 names upon their pay-rolls, and upwards of $12,000,000 have been expended in improvements by the various organizations of which Colonel Greene is the head.

The business is projected upon a scale that almost staggers a mind not acquainted with immense modern enterprises and the facility with which they can be pushed forward. From the start, Colonel Greene grasped the magnitude of the undertaking and his confidence and enthusiasm soon became contagious. Various departments were organized for the efficient transaction of business, so that all operations are now conducted upon a system as perfect as anywhere has been devised. Among the departments are the banking department, the land and law department, the railway, the mercantile, the mining departments, and the department of public improvements, each of which is under direction of skilled managers. Colonel Greene receives reports regularly from his chiefs, and his talent in selecting the right man for the right place is shown in the remarkable success of the general organization. His method is to decide upon a line of operations, consult with the head of the department as to the means for its accomplishment, place at his command the necessary resources, and to judge by results. Having selected a man for any specific undertaking, Colonel Greene trusts him fully and backs him to the limit. His employees are his friends, and fealty to friends is one of Colonel Greene's first principles.

The transformation that has been witnessed during the last five years at Cananea is one of the most interesting chapters in the history of modern mining. It called for immense faith on the part of the projectors and the best ability of the mining world. The most experienced mining engineers who have visited the spot declare that, in all the mining camps, there has been no parallel to Cananea. The knowledge of Colonel Greene as to local conditions was of great value, and his acquaintance with the character of the people in a wide region made many steps comparatively easy. The confidence of Mexicans and Americans in Colonel Greene himself was an important element. He understands the Spanish language as well as he does the English, and the customs and modes of thought of the inhabitants of the Southwest are to him perfectly familiar. He projected his plans upon a stupendous scale—and won. Soon the ground was being opened in many places simultaneously, and the most improved machinery was rushed to the spot. Smelters and concentrators were erected, a narrow-guage railroad, the main line of which is twelve miles long, was built, and the mountains for a distance of ten miles were burrowed for copper.

The copper occurs at Cananea both in fissure and blanket formations, which range from four feet to forty feet in thickness. The ore is divided into two classes—high grade and low grade, the former averaging 10 or 12 per cent copper and the latter 5 per cent. More than twenty-five miles of underground workings have here disclosed bodies of ore so immense that figures do not express the value. The deepest workings are 500 feet below the surface. The smelters have a capacity of 2,000 tons of ore a day, and converters refine the matte for shipment to the Atlantic coast. Concentrators, operating on low grade ores, handle 2,000 tons of ore daily, reducing seven tons of ore into one. The mines are a network of shafts and tunnels, with eight main working shafts and as many tunnels. The main working tunnels are double-tracked and are ten feet wide at the base. Electric haulage is gradually being introduced, and limestone and iron for fluxes in the smelters are found on the property of the company, which covers 500,000 acres of land. The known mineralized portion covers 20,000 acres.

One of the early steps of the company was the construction of a railroad forty miles long connecting Cananea with Naco, Arizona, on the El Paso & Southwestern Railway. The railroad was later sold to the Southern Pacific Railway Company, but a twenty-five year freight contract with the builders of the road, insures a low freight rate for the mining camp.

Enormous outcroppings of ore give evidence of long-continued progress in development, as it will require generations to exhaust the wealth that lies buried in Cananea mountains. No man can place bounds to this magnificent enterprise. Colonel Greene is of the opinion that the surface has scarcely been scratched, and competent authorities claim that the real value may approximate that of the celebrated Comstock lode of Nevada, which produced $350,000,000 during its active period, and is now being further explored.

Another great mining enterprise of which Colonel Greene is president and general manager, is known as the Greene Consolidated Gold Company. The company owns placer grounds extending for fourteen miles along the Santo Domingo River, in the State of Sonora, Mexico. It is one of the largest placer-mining projects ever launched in America. Extensive borings were made and shafts and drifts were excavated in the sands of the river valley, the gravel yielding a value of 70 cents to $12.00 per cubic yard. The richer values, as in all placer deposits, were found near bed-rock. The depth of the pay gravel is thirty-five to forty-five feet. These placers were the source of much of the gold of the Aztecs, previous to the conquest of Mexico by Pizarro, and crumbling missions on the banks of the stream are proofs of mining by the early Spaniards before their expulsion, in 1722, by the native Indians. The Spaniards and Aztecs, however, worked the gravel near the surface, and it remained for great capital and modern appliances to penetrate to bed-rock and reveal one of the richest gold deposits ever discovered in the Rocky Mountains. Colonel Greene first prospected in this region wenty-two years ago, but was driven out by the Indians. He returned in 1886, after the capture of the Chief Geronimo and the subjugation of his treacherous band, and resumed making locations which have finally resulted in the acquisition of 6,300 acres of placer ground. More than $500,000 have been expended in preliminary work and machinery, the latter including steam engines of immense capacity; steam shovels, such as were employed in the Chicago drainage canal; pumps, elevators, ærial, and cable tramways, and all the best approved devices necessary for saving placer gold. The cost of pumping the water and handling the gravel is estimated at 22 cents per cubic yard, and 6,000 tons of gravel can be handled in a single day.

This gigantic placer-mining project has required the assistance of the best minds of that special branch of the industry, and gives promise of phenomenal growth.

Colonel Greene recently purchased the Rio Grande and Sierra Madre Railway, which he proposes to extend 100 miles further to the borderline of Chihuahua and Sonora, where he has acquired 2,800,000 acres of land. The railway will open up the rich pine forests of the Sierra Madre Mountains, and also will supply transportation for the celebrated Mulatos gold mine, a property owned by Colonel Greene and associates, which has been a gold-producer for 100 years.

Cananea, the Wonderful Mining Camp of the Southwest.

At the request of the Mexican Government an exhibit of copper and gold from the Greene properties was made at the Louisiana Purchase Exposition, in charge of Allan C. Bernard, representative of Colonel Greene, which attracted the interest of visitors from all quarters of the globe. The display carried off the grand prize for individual copper exhibit and the gold medal for gold exhibit.

One of the chief interests of Colonel Greene, however, is the cattle business. By natural inclination a live-stock raiser, he has for many years kept in view the establishment of a great cattle ranch on the border of the United States and Mexico. How one brain could accomplish this object, in connection with the vast projects heretofore described, is an enigma that the writer will not attempt to solve. Suffice it to say that the Greene Cattle Companies own more than 6,000,000 acres of land in Arizona and Mexico. The Greene ranches in Arizona are located in Santa Cruz and Cochise Counties along the Babacomori, San Pedro, Santa Cruz, Red Rock and Sonoyta Rivers. This company owns all the land on both sides of the Babocomori River from its source in the mountains to its mouth, a distance of thirty-five miles, and all the land on both sides of the San Pedro River from its junction with the Babacomori to the Mexican international boundary line. It is estimated that 30,000 acres along this valley can be placed under irrigation. Ownership of these lands was acquired by purchase of four confirmed Spanish grants. Colonel Greene has also bought out many squatters' rights, also purchasing their cattle, and he gained the good will of the whole region. To-day he occupies the unique position of having succeeded in ownership of long disputed Spanish grants, and the real estate and cattle holdings of squatters who had been fighting the land claimants.

Here is maintained one of the largest cattle herds of the continent. The chief in charge is Frank L. Proctor. In the year 1904 the brand was placed upon 35,000 calves, and rapid accessions are being made to the herd. Upon this ranch is the largest herd of pedigreed Hereford cattle in the world. The pedigreed herd has the blood of Sir Richard 2d, Lord Wilton, Anxiety, and Grove 3d, and was developed for many years under direction of Colin Cameron. The grade herd of the ranch requires 2,500 bulls, and of this number 1,500 are registered. Bull calves from the registered herd sold at auction in Kansas City for three years, 100 head being offered annually, and averaging $145 a head. The steer stock has been distributed among the farmers as far east as Ohio, Pennsylvania, and New York. As Colonel Greene is a thorough judge of a beef animal, he is keenly alive to every step that will increase the size and weight of the type reared on his ranches.

Steers are sent North from the ranch and fattened for the market in all the principal feeding States, and thousands of cattle are shipped to the Pacific coast. It requires 10,000 cattle a year to meet the demands for beef at Cananea, and many are disposed of in populous centers of Mexico.

At the present rate of progress, if nothing interferes, it is prophesied that the Greene cattle companies will in a few years reach a position as the greatest cattle organization of modern times and the greatest the world has ever known. One reason for this prophecy is the location. Commissioner Bartlett, who surveyed the boundary line between the United States and Mexico, after the close of the Mexican war, in his report to the United States Government stated that the region which Colonel Greene has selected for his live-stock operations was the best grass country of America. Colonel Greene is endeavoring to restore the range to its virgin condition by having the entire ranch divided into pastures of 100,000 acres each, as nearly as possible, so that pastures may be given an entire rest for a whole year. Extensive experiments are also being made in growing plants from the arid regions of Russia and Turkestan, and the Russian thistle has been found to be a valuable forage plant for the Southwest. The management of the ranch is in close touch with the Department of Agriculture at Washington, and the most successful and improved methods of breeding, handling, and marketing live stock are utilized.

Pure-bred horses are reared upon the ranch, and in the stables of Colonel Greene in New York city are shown some of the most perfect horses ever bred in America. These horses are bred and reared in the mountain regions of Southern Arizona, and include animals of the highest excellence as trotters and runners. The stallion, Arizona, a beautiful bay, foaled May, 1901, is pronounced by Colonel Greene as the greatest horse in America. Arizona stands 16 hands, one-half inch high; has two white hind pasterns, a small star in the forehead, a beautiful tail and mane, and weighs 1165 pounds. He was sired by Zambro 2:11, and he by McKinney 2:11¼.

Arizona's dam, Bell Raymond, was by Raymond 12007; second dam, Gypsey, dam of Gazelle 2:11. Colonel Greene believes the climate, altitude, and grasses of Southern Arizona form an unequaled combination for the development of the future prize-winning horses of the United States. Florence Wilton, a great sprinter of the Atlantic coast, and Cobre Grande, a sorrel stallion of marked characteristics, are from the Greene ranch.

"The man who says the opportunities for making a fortune are not as good as they used to be, is mistaken," said Colonel Greene, in discussing a subject of general interest to every reader of this history. "The opportunities for becoming financially independent or even very wealthy were never as great as they are to-day. A few years ago the men who got possession of large bodies of land at a nominal value, made great fortunes, but the increase of population and the wonderful industrial advancement of America have opened numberless new avenues for the young man who has the ambition to move up. What the country needs and what it is constantly calling for, are young men of energy and industry who are capable of taking the initiative. It does n't make any difference what part of the country a young man may be living in, the field is open before him and it is ripe for the harvest. Great stretches of the United States from Maine to California and from Wisconsin to Louisiana are entirely unimproved. The man who gives a known value to an unknown value is the one who succeeds. The man who recognizes the natural resources that are lying about unnoticed by the ordinary observer—he is the one who rightfully bears off the prize. Any young man who will have confidence in himself and watch for the unknown value, has a foundation that ought to carry him to success."

Colonel Green has been twice married, and his wife and four children are prized by him far beyond all the riches of farms, ranches, railways, or mines. In the circle of family or friends the perplexities of business fall from him as a mantle, and wherever he appears, onaccount of his natural friendly disposition, he is greeted as a thrice-welcome visitor. The world has learned that the great business mind is a most potent factor in advancing its real interests, and it is as plain as an axiom that the spirit which presents the opportunity for others to help themselves is one of the noblest attributes of humanity.

The Range Rustler.

Opening of the Gates of Opportunity to Enterprising Men.—The Cattle-Stealing Industry in the West.—The Beginning of the Matter.—Early Shifting of Texas Cattle to Mexico.—Gathering Up the Loose Cattle of Texas.—Origin of the Term "Rustler."—Its Real and Its Applied Meaning.—Rise of the Rustler.—Extent of His Operations.—The Burglar of the Wild Cattle-Land.—The Rustler and the Maverick.—Origin and Meaning of the Term "Maverick."—Another Contribution to Our Forms of Speech by Range Stockmen.—The Rustler in Texas Before the Civil War.—His Offenses Not Regarded as Serious.—"Squaring Up" with the 'Squire.—Some Indirect Consequences of the Civil War.—The West Overrun by Disreputables.—Extension of Cattle Rustlers' Operations.—Ludicrous Incidents.—Sympathy with the Rustler.—A Notorious Texas Rustler.—"Burning" Cattle.—Altering Brands.—Methods Employed in Changing Brands.—The Rustler as a Hero.—Attitude of Cattlemen Toward Rustlers.—The Maverick.—Trouble Caused by It.—Transformation of Some Cowboys.—Buffalo Hide-Hunters as Rustlers.—The "Slow Elk."—Raiding Herds of Cattle-Raising Corporations.—Strife Between Stockmen and Rustlers.—Organized Warfare in the Northern Country.—"Rustler War" in Wyoming.—Texas Rangers.—The "Lincoln County War" in New Mexico.—Cruelty of the Bloody Strife.—Changed Conditions in the West.—Fate of a Recent-time Cattle Rustler.

The rise and development of the range stock-raising industry opened wide the gates of opportunity to many enterprising western men of loose ideas about the rights of property. The conditions that have run with the business from its beginning have been peculiarly favorable to the operations of those who regarded as a "dead letter" that part of the tenth commandment that tells us we shall not covet our neighbor's ox. While sheep raisers have been exasperated and plundered by thieves of the range, and an inestimable number of horses have been appropriated without consideration, the burden of the depredations has fallen upon the cattlemen. In former times these losses were a heavy burden, but nowadays they are not very serious.

In years gone by the number of men skilfully and regularly engaged in stealing range cattle was so large and the extent of their depredations so great that their operations were raised almost to the rank of an established industry. This trade, or business, or, perhaps, profession, has a history that runs far back into the annals of the range. It is different from the ordinary, retail cattle-stealing that men have done from time immemorial; and also from that of the god Mercury, who returned to their owner all but two of the herd he had taken.

To get at the beginning of the matter, we must revert to Texas, as we have so often to do in the history of cattle raising on the range—go back to about the time of the close of the war with Mexico. By the treaty of peace (February, 1848), details of the boundary line westward from El Paso were to be determined later by a joint commission consisting of representatives of the two countries. But it was definitely understood by the peace convention that the Rio Grande from El Paso to the gulf formed a part of the international boundary. Shortly after the conclusion of peace, small bunches and even considerable herds of cattle began crossing the Rio Grande into Mexico under escort of men who did not appear to be seasoned ranchmen. Few if any of these cattle were branded, the mass being "mavericks," although at that time they were not known by this or any other special name. In that period there was a fairly large number of cattle running "loose" in the south-western part of the coast region of Texas, and as the conclusion of the war had thrown many restless men upon their own narrow resources, some of them turned to gathering up bunches of these cattle and driving them into Mexico, where they were sold for whatever price they would bring. That was about the only market available to these live stock exporters, and furthermore, once across the river, they were not likely to have embarrassing questions put to them.

This hardly could be called cattle-stealing, for no one certainly knew to whom most of the stock belonged, and any claimant would have had more trouble in proving ownership than the animals were worth. In proportion to population the Texans had a great plenty of cattle and could spare some for Mexico without feeling the loss of those they were unwittingly contributing. But within a short time the supply of "loose" cattle became exhausted, and as these international stockmen were not yet ready to retire from business, they began gathering up cattle that were not "loose" for supplying their Mexican customers. While most of the men engaged in this traffic were Americans, the Mexicans who also took a share in it, were as shrewd and expeditious as their Yankee associates.

So the "cattle rustler" entered upon his long and troublesome career, which continues unto this day.

But in these old times he was not known by that name. The Texan stockmen gave him the blunter one of "thief." "Rustler," which now is the term for a cattle-thief in every part of the range country, just as "rustling" is for cattle-stealing, first came into use in the central districts and soon spread over all; and also is one of the several striking additions to our language, for which we are indebted to the live stock industry in the West. Like "ranch" and the others of these words, both as nouns and in verbal derivatives, "rustler" has become an established term for any person who is active, pushing, and bustling in any enterprise, and is the equivalent of "hustler," a person who moves with haste and promptness, who shows push, energy, and despatch in the accomplishment of any purpose or work.

The cattle rustler brought all of these qualities to a high state of development, beside having those of great physical endurance and desperate courage. As cattle raising on the range was extended and grew large he followed it and grew with it. When the industry had covered the country from Mexico to the Dominion, his operations also covered the same immense extent of pasture-land. He said to the cattleman, "Whither thou goest, I will go," but the rest of the sentiment did not apply to the relations between the two. These stood for war: bitter, unrelenting war on the part of range stock-owners against this burglar of the wild cattle-land.

Watering on the Concho River.

Between the rustler and the "maverick" there is an intimate, a close, association, both historically and in the common thought of western stockmen. Specifically, the maverick is merely an innocent, harmless animal of the cattle tribe that is without a brand and above a year old, but historically it has caused untold trouble and bloodshed on the range.

The common definition of the term "maverick" is that it is the name of a before-the-war Texas cattleman, Samuel A. Maverick, who refrained from branding his stock from considerations of humaneness; declaring that the practice was brutal, cruel, and unnecessary. Another that is different excepting as to the name of the cattleman, and also more circumstantial, says that Maverick early in the '50's bought a stock of cattle from a man named Tilton, who lived on the Matagorda Peninsula, and took the herd to a ranch he had acquired on the San Antonio River, about fifty miles south of the town of San Antonio. He put the cattle on range in charge of a negro foreman and several Mexican cowboys. The colored brother, having taken to the bottle, neglected his duties, failed to brand the increase of the herd, and suffered the cattle to roam far over the country. In 1855 Maverick sold his entire outfit, brand, and range and all the rest to Toutant de Beauregard, a neighbor stockman. It was a kind of "blanket" deal, and according to its terms Beauregard, in addition to the number of cattle present and actually transferred in the trade, was to have all the others, branded and unbranded, that he could find on Maverick's range. Beauregard, being a careful man, then, it is said, instituted a systematic hunt, a round-up, that covered not only Maverick's range, but several counties, and whenever his men found an unbranded cow-beast they claimed it as "a Maverick," put Beauregard's brand on it, and drove it in. It is from these circumstances, and not from Maverick's humaneness, according to the story, that the term "maverick" became applied to unbranded cattle range.

In this word we have still another contribution by western stockmen to our forms of speech, and its use has been extended to anything of unknown ownership. As a noun it is also used in the West as meaning something obtained dishonestly, by appropriating to one's own use and benefit a thing of value belonging to another; and as a verb to secure illegally or crookedly any kind of property, as to "maverick" an unbranded beef animal, the ownership of which is known, or a land claim, and so forth.

While the rustler was present in Texas throughout the times before the war, and usually kept his eyes open for a chance to do business, his number was not great nor were his depredations very burdensome upon the cattlemen. In the aggregate he ran off a good many head of stock to the farther side of the Rio Grande, but cattle-values were not high, the animals were plenty, and a few less in a herd made little difference. Moreover, he was not in that period a skilled practitioner, such as he became in aftertimes. He was not an artist in changing a brand so completely that its owner could not recognize what was left of the original. It was not necessary then for him to know and practice such arts. The crude work of getting his bunch of cattle together and headed for the Rio Grande were the main things.

Beside this, the pioneer rustler's offense was not generally considered a very serious one, and if he "got caught" the Texas law was "easy" on him, if a jury of his peers failed to excuse him altogether. He was guilty of nothing more than a misdemeanor, the penalty being nothing more than a light fine, and perhaps a brief imprisonment to boot. But the execution of the law was so lax that the rustler felt that practically he was licensed to prey upon the range-herds whenever he pleased. Not infrequently in those days in Texas, when a hard-up cattle-thief had been "found guilty" and was fined ten, fifteen or twenty dollars, the 'Squire gave him time on the fine and let him go, with the understanding that as soon as he succeeded in "raising" the money he would come in and settle. He raised the money by stealing more cattle, and made it a point of honor to square up with the 'Squire. This impressed upon the mind of the Court that the rustler was a man of his word and had its influence the next time anything happened. The public attitude toward the offense was much the same as it is and long has been in many communities toward gambling and certain other things that the law itself forbids.

Certain of the consequences of the Civil War indirectly were the causes of raising cattle-rustling from the circumscribed part it had played in Texas to one that was very much like an organized business; and in some large sections of the range country it eventually took on a form of organization. In Texas thousands of men returned from the war impoverished, discouraged, and knowing not what to do for a livelihood. Many others had been utterly demoralized by the war, and had no inclination left to the quiet, orderly, law-abiding ways of civil life. In the North other thousands of the last-mentioned class were turned loose and drifted to the "frontier," which was fast receding westward before the great inflow of people who were taking possession of the fertile lands. The range cattle business was spreading from Texas, beginning the movement that never stopped until it had been carried to the limits of the great wild pasture-lands. Cattle had become far more valuable, new markets for them were being opened and the general conditions on the "frontier," in Texas as well as in the North, were about as favorable to cattle-stealing as one could imagine.

Ranch Scene in Texas

In Texas immediately after the close of the war, some discouraged but honest men turned to the range and gathered up bunches of the neglected cattle they found there, and after securing enough with which to start herds, went into the cattle business in the regular way. Practically there was no wrong in this, for it would have been hard to tell who owned the cattle. Others of this class did the same thing, but the ease with which they acquired these cattle influenced them to keep on getting cattle by shadier methods. They became rustlers; and once a rustler it was the exceptional man who could break away and return to the strait and narrow path.

Many of the demoralized men—not necessarily desperadoes, but ready to do desperate deeds—saw in cattle-stealing a business much to their fancy and took a hand in it.

As the cattlemen extended their industry over Texas and into New Mexico and Arizona, over the central plains region, into Utah and Nevada, and over the great country in the North, the cattle-rustlers likewise extended theirs. The latter for some years "operated" independently—each man "on his own hook," but eventually the uses of coöperation became apparent to many of them. They bought and sold among themselves. They gave each other "bills of sale" in regular form, exact imitations of the bills which it was the custom of legitimate sellers of range stock to give legitimate buyers; the bills being evidence of rightful possession of a bunch or herd of cattle that was being moved from one part of the country to another.

As among men in other callings, Prosperity was partial in bestowing her favors, and before long there were "big" and "little" operators in rustlerdom. The former, getting together small bunches of cattle, set up in business as range stockmen, conducted themselves prudently, and to all outward appearances were "honest, industrious poor men" "trying to get a start" and to "do something" for themselves—until they were "found out." These men were, in police parlance, "fences"—that is, receivers of stolen goods—cattle. The "little" rustler, who had picked up a calf or two or a half-grown steer, found a market for them near at hand at the ranch of one of these masquerading rustlers; who also was constantly but gradually on the "look-out" for similar stock himself. Of this grade of rustler an anonymous writer said some twenty years ago:

"All that the 'industrious poor man' has to do on the range is to buy, or in some way 'own,' a few cows, using them as an excuse for being on the range. Starting with these as a nucleus, he can add to the number considerably, provided he is an enterprising man, who, in an absent-minded way, uses his own brand by mistake on his neighbors' calves, or on the mavericks he may find. If he attends strictly to business, and devotes himself to honest industry in this way, he will be certain to rise in the world—it may be through the instrumentality of a rope, for stockmen do not like this kind of 'industrious poor man.' If, however, he is smart enough to alter a brand and change an ear-mark, he is usually smart enough to avoid detection, and very liable to get rich."

There are numerous stories of men who were searching for rustled cattle stopping at the ranches of these "industrious" stockmen and being hospitably received and entertained; eating bountiful meals, the main part of which was beef from some of the very animals for which they were hunting. But such courtesies were not always one-sided. "Square" ranchmen have been known hospitably to keep over night a passing rustler of agreeable manners, and to turn into his corral the stranger's bunch of cattle, a part of which had been taken from the host's own herds.

It was not in human nature, or at least in western human nature, to withhold a measure of admiration from such men—for their "nerve," daring, and some other qualities and deeds that appealed to the imagination. Among many western people the wrongfulness of the rustlers' trade was hidden in a kind of glamour; something like that through which the boy sees his pirate hero in the pages of the dog-eared trashy book he is devouring. The boy in his sober senses realizes that the pirate and his business really are not worthy his admiration, but he forgets this when under the spell of the vividly-told story of pirate life and adventures.

As desperate and dangerous a man as ever engaged in cattle-stealing in Texas, became really a popular hero far and wide, chiefly because he would stand by any of his associates in times of trouble, whether this was an entanglement with the law or a fight with exasperated cattlemen. He was known as Martin Monroe, or Monrow, and operated in northwestern Texas. In the early part of his career, before he had become bold enough for evidence of his misdeeds to appear on the surface, he was ostensibly running a ranch in that section of country and struggling along with the rest of the pioneer cattlemen. Later he came out in the open and gathered around him a band of as desperate rustlers as the whole range country afforded, and the killing of men became a common occurrence in the outfit's operations. It was estimated that during the ten or twelve years in which Monroe was known as a cattle-thief (he was killed at El Paso about ten years ago while resisting arrest) he made way with from 15,000 to 20,000 head of cattle, most of which he ran across the Rio Grande into Mexico. He was also accorded the "record" for Texas for "cattle burning"—that is changing the brands by re-burning in various ways. Yet, this ignorant and brutal man, of unmitigated criminal instincts, in a large measure redeemed himself in the minds of many people—but not of many stockmen—because he "stood by," "would n't desert," his criminal comrades when trouble was at hand.

The practice of "burning" cattle, of altering the brands so that the old part and the new would form a perfect and quite different new brand, was raised to the dignity of an art by the rustler. He had to know about many other things: he knew the ups and downs and ins and outs of the country; the number of cattle held on each of the ranges for miles and miles, and the character of the management of the ranches—

whether alert and efficient or careless and slipshod; and also the brand of each, a diagram or sketch of which he practised on in advance to familiarize himself with ways of changing the originals beyond all probable chance of recognition by the owner if "anything happened"; and frequently he carried such diagrams or sketches with him to refresh his memory at the time of doing "business."

But above all things else he must know about the "burning," and know it well, for he must do the work very skilfully. He must deceive not only the average range stockman, but the shrewdest and most expert cowman among them—and many of the cowmen were wonderfully shrewd in everything connected with their business and that affected their interests. The rustler carried no large assortment of branding-irons. The like of that would n't do. He could not alter a brand by burning a different one directly on top of it. Almost any cowman readily could see afterward that there had been a tampering with the original. Probably the wound would slough and the resultant scar "give away the whole thing."

Some pieces of pliable wire, preferably of telegraph wire, of handy lengths, were his main dependence in the times when his business was at its zenith. With these simple tools he could do wonders. Such pieces of wire easily were carried in concealment and could be bent into shapes that would change original brands so cunningly that scarcely any suggestion of the former figure, letter, or design would remain after the burn had healed. Some expert cowman might have his suspicions, but he would not "swear" that the brand had been altered, for it might embarrass him if he were asked to point out the remains or traces of the old one. The expert rustler forestalled this. After he had used his simple wire the changed brand appeared as if the whole of it had been made at one impression of a regulation branding-iron—a model of innocence and regularity. The new connected with or ran into the old so cleverly that no man "legally" could tell where the old ended and the new began. Perhaps the Court itself might have suspicions, but what of that! The "evidence" was not conclusive, and furthermore the Court might still have memories of the impressions its mind received in the pirate-book days of its youth.

A Typical Water Tank.

Beside all this, it was an important part of the average rustler's self-training to qualify himself for playing the part of the "industrious poor man" who was doing his "honest best" to "get up in the world." Many of the rustler brotherhood would have become shining stars in the theatrical firmament had they taken to the stage instead of the range, and there figured as the heroes in struggles between the lowly and the grasping, avaricious powers, in which virtue ultimately triumphs.

While some rustlers used directly the iron rod with which the "running brand" was made, they did so only on "easy" brands. The rod-method was crude, and on brands other than those of simple form also was dangerous, because it might fail entirely to make any obliterating change in the old, and yet leave unmistakable evidence of tampering. The rustler took pride in his business and shrank even from the thought of botchwork. Usually when it was thought more effective to use the heavier iron instead of a piece of wire, recourse was had to the "wet blanket" process. A scrap of wet woollen blanket was laid over the old brand and a hot iron applied to it—branding through the blanket. But, as the reader readily will see, there was a good deal of uncertainty about this. It might "work out all right" and it might not. Nothing more thoroughly disgusted the rustler than a "fizzle" in his efforts to improve the appearance of a brand and at the same time completely change its significance. When this happened, life seemed to him hardly worth living.

There were many learned discussions between rustlers as to the respective merits of the wire-working and the wet blanket methods of reducing original brands to satisfactory forms, and the preponderance of opinion was in favor of the readier, more convenient, and more certain wire.

For years after the Civil War—until well into the decade of the '80's—the attitude of all the range cattlemen, cowboys as well as owners and managers, toward the cattle rustlers was one of armed and unrelenting hostility. To them a rustler was a person to be shot or swung at the end of a rope whenever he was "caught in the act," and many of them thought he should so be disposed of whenever he was caught, whether he happened to be "doing anything" at the time or not. Ranch-owners had, of course, good reasons for their enmity in their financial losses at his hands. The cowboys, in their faithfulness to their employers detested him because he was a thief. Their code of ethics was not an extremely rigid one, but stealing was a thing it did not tolerate. They required that a man be "square" first of all; they could overlook or forgive his freaks and idiosyncracies. But after the advent on the range of syndicates and corporations with their overshadowing methods of conducting their business in wholesale cattle raising, demoralization ate its way into the ranks of the cowboys; and for much of this the maverick was indirectly responsible.

All of the mavericks that ever set foot on the western ranges were worth nowhere near a moiety of the trouble, strife, and bloodshed they unwittingly occasioned. Everybody constantly was on the look-out for mavericks, and shooting-matches were not uncommon between rival claimants as first discoverer of one of these unbranded animals. All of the rustler's cattle had been mavericks, according to his story. Finally the distinction between this class of cattle and unbranded calves was disregarded, and the latter were taken as quickly as the former whenever there was a chance.

In an earlier time, ranchmen began paying their cowboys a few dollars extra for each maverick any of them found and put under the brand of his employer; the sum ranging from $3.00 to $5.00, according to the grade of the animal. This was merely a gratuity, a kind of lagnappe in good will, for the cowboy, in his loyalty to his employer's interests, eagerly would have "taken in" the maverick anyhow. After cattlemen's associations came into existence, some of these for a while paid any cowboy $5.00 for each maverick he overhauled, the animal becoming the property of the association. These practices resulted in changing the attitude of some of the cowboys towards mavericks—aroused their commercial instincts.

The country was filling up with new range-cattle people. Corporations and syndicates and outfits owned by non-residents—men who lived far away, were coming in and crowding the old-timers. Mavericks were worth more than the rewards the cow-puncher got for them. Why not, he argued to himself, keep them and get more, and go into the cow business on his own hook? He understood it, and he knew the range country and all its ways. Perhaps he had "saved up" enough of his wages to buy a few cows. So he "fixed up" a brand, devised an ear-mark, had them registered, and went into business on his own hook. But the maverick kept much in his thoughts: it stood for an easy way of getting cattle and also for "getting ahead" in the world. He would be a hunter of mavericks more than a cattle raiser.

But there were many others working along the same lines; new men on the range who had come from anywhere and everywhere and nowhere. The rustlers were busy, too, and there were not enough mavericks for everybody. There was a plenty of calves on the ranges of the corporations and syndicates and of the "big" non-residents. Why be so particular about age and as to whether the animal really was a maverick or not? The big outfits were crowding the "little" men who were trying "to get a start"; and anyhow a few calves more or less would n't make any difference to them, and—well, before he was conscious of the change, the erstwhile cowboy had become a rustler.

A Group of Texas Rangers.

After the buffalos had been "cleaned" out, hundreds of men, even thousands, who had subsisted for some years upon the miserable business of "hide-hunting" found themselves without an occupation. They had learned a good deal about the range country and also something of the ins and outs of the cattle business, besides having a memory of that of certain rustlers they had met. Many of these hardy and well-seasoned men scattered over the cattle country—but did not starve because there was no more buffalo meat to eat, or because other wild eatable creatures had become very scarce. Herds of cattle as big if not bigger than those of the buffalos were taking the country, and so there was no scarcity of good beef. Moreover, these herds gave a man a chance to make more money than he ever did at skinning buffalos. So rustlerdom had its ranks swelled by hundreds of daring men inured to a rough life and willing to take chances. As riders, they might not be so skilful; in the use of the ropes they might not be experts; as dead shots, they might not be so "sure" as the old and experienced rustler nor as the cowboy who was now "on the rustle"; but they could learn more about these essentials to their new business, or they could become useful "pardners" to men already in it. Some of the enviably successful of the latter-time rustlers were of the men who had shifted from hide-hunting to cattle-stealing.

It was a rare thing for a rustler to kill for beef an animal to which he had obtained "title" by branding either as a maverick or when a calf or by the "burning" process. He shot a fat young beef on somebody's range, skinned it, and carried away as much of the meat as he wanted or could take. As possession of the branded hide might lead to an embarrassing situation, and as it was not worth while to leave it where it might serve to identify the remains of the slaughtered beef, he usually burned, buried, or concealed it where it was not likely ever to be seen. After the advent of cattle companies and syndicates, and other big outfits, he made it a point of honor to draw his beef supplies from their herds and to leave the "little" ranchman's stock untouched. In many parts of the range country it was not regarded as a crime, not even any sort of offense against Justice, for a resident, rustler, or any one else to kill all the beef he needed, provided that the animals, or "slow elk", as they were called in the northern country, belonged to a big outfit—a corporation or syndicate preferred. Some men made a business of supplying customers in the little cowtowns with "slow elk" beef.

No estimate can be formed of the number of lives that have been sacrificed in the long and bloody conflict between stock-owners and stock-thieves in the West and Southwest. Cattle rustlers and horse-thieves were lynched or shot in Texas frequently in the period before the Civil War in numbers that probably aggregated hundreds. Horse-stealing always was considered a far more heinous offense than stealing cattle or almost any other kind of property, regardless of the money values involved in the transaction.

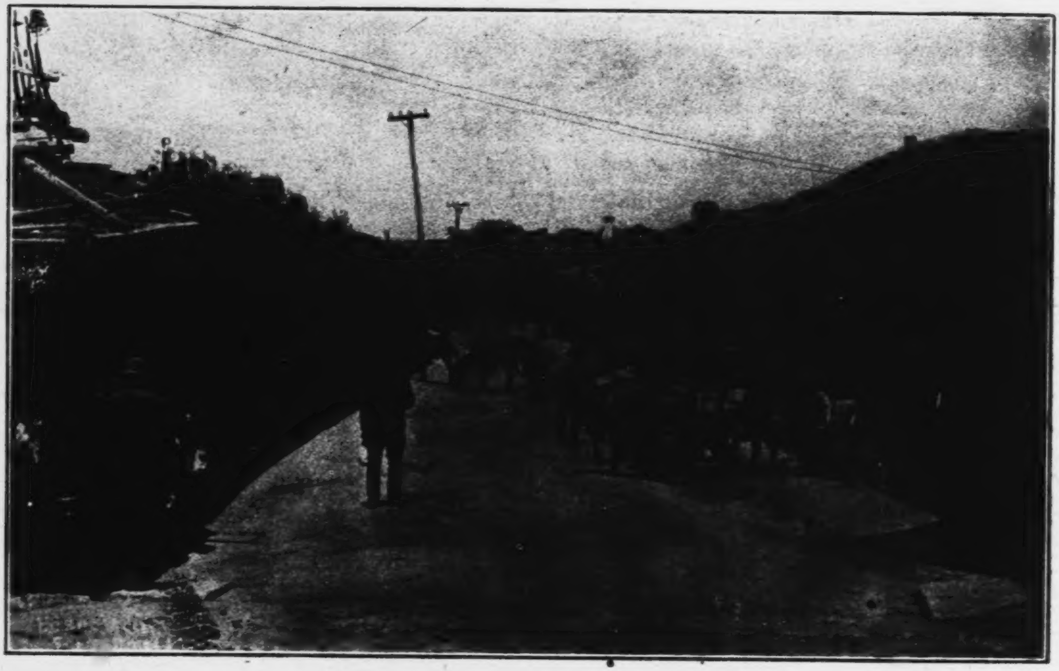
To take from a man his horse in the immense wild country, left him in a desperate situation. He depended on it as a means of locomotion and for carrying his little camping equipage; and when hostile Indians were around, a traveler on foot had small chance for escape if they got after him. To the settler the horse had a value above money-price, if the man had not enough money to buy another—as often was the case. In the long strife between these land-pirates and the stockmen and settlers the former, of course, suffered much the heavier loss of life; but the death-roll of the latter two is a tragic one, and most of the names it bears are those of men identified with cattle raising.

In no part of the range country did this conflict become more acute and desperate than in Montana and Wyoming. By the middle '70's thieves literally infested the occupied parts of Montana, who stole horses, ran off cattle, and indiscriminately robbed all who had any other kind of movable property. These plunderers "settled" in the country, built themselves cabins in out-of-the-way places, and had a kind of loose organization among themselves. Some were professional cattle-rustlers, some professional horse-thieves, while the rest were cheaper robbers, but ready to lend a hand to any undertaking of their associates. The conditions became so intolerable that the stockmen of Montana organized for mutual protection and for the purpose of crushing the outlawry by the extreme means of the rifle and the rope. The general civil organization was too feeble to cope with the situation, and the processes of law in the Courts had afforded little relief. Many of the more dangerous and persistent outlaws were known. The Vigilance Committee of the stockmen served notice on these to leave the country at once and never to return. Some of them appreciated the full significance of the warning and got out as quickly as they could. Those who did not, but remained in defiance, were hanged or shot wherever they could be found. In a single campaign—the first—about seventy-five of these desperate men were forever disposed of, some of them being the most noted and troublesome cattle rustlers in the country. In one hanging operation thirteen men were swung off from a railroad bridge together, and their bodies were found there next morning by the railroad people, swinging at the ends of the ropes in the breeze that was blowing. The crusade extended into western Dakota and western Nebraska, and it is said that "in the ten years from 1876 to 1886 the *vigilantes* of the range executed as many men in Montana, Dakota, and Nebraska as have been legally executed by the law in any dozen States in all the time since then." In the then existing condition of affairs, these harsh off-hand methods of disposing of men who had arrayed themselves against all law and against life and property, were the only effective ones at hand and were justifiable. The yarns about the lynching of "innocent" men in the old, wild days of the West are, like much other stuff that has been written on "Life in the West," the worst of rubbish. It is doubtful if there ever was a case of lynching a truly "innocent" man by a Vigilance Committee. The Vigilance Committees knew their men, and the almost invariable practice was to order the less dangerous among them to leave the country.

The extreme measures adopted and pursued in that period in Montana, western Dakota, and western Nebraska broke the power of the lawless in those political divisions, although it did not entirely eradicate the evils. Horse-stealing and cattle-rustling still went on, but in greatly modified form, as they do even to this day. But the loose organizations were destroyed, and rustlers and horse-thieves were taught that in the taking of human life for the sake of getting a horse or a few head of cattle they would forfeit their own.

Wyoming was the next to have an organized contest between cattlemen and cattle-thieves, or, to use a milder term, cattle-rustlers. This was the somewhat noted or notorious "rustler war" of 1892. It was a peculiar episode in the history of the range cattle industry, for a large number of the "little" cattlemen were in sympathy, if they did not "take sides," with the rustlers as against the large cattle companies and large individual operators. The cattlemen of Wyoming had had a full share of trouble with rustlers from the time they had first entered the country, but for several years before this "war" broke out, the rustlers in Johnson, Natrona, and Converse Counties had become so numerous and so well organized that they "had things pretty much their own way," and their depredations had become intolerable. The sympathy of the small, legitimate ranchmen with the rustlers was explained by references to the attitude and practices of the large outfits, but the real basis for it was to be found in the changed conditions, not only on the range, but in every other part of the West. The Old West had been submerged by the New, but there were many men who could neither comprehend nor realize it. In the spring of 1892 a meeting of the large cattle-owners of the State was held at Cheyenne, at which it was resolved to "clean out" the rustlers. The names of above one hundred men who were to receive attention were mentioned, and about one-fourth of them were to be introduced to noosed ropes. An expedition against the enemy was organized and sent forth—but, to cut the story short, newspapers and politics took up the matter, and all sorts of complications "mixed in." Only three or four men were killed during the campaign—two of them rustlers, the others, if there were four, of the invading forces, being said to have lost their lives by accident. While this movement was a "drawn game," it had great influence upon the lawless element in the State and since that time rustling steadily has declined in Wyoming; although, as elsewhere in the western cattle country, men who persist in coveting their neighbor's ox are still doing "business."

In the central plains region and over into Utah the operations of cattle-rustlers always were less spectacular. The character of the country was less favorable to them, the range-herds were more carefully guarded, and ranges usually were smaller in extent. Furthermore, it early became traversed by railroads that modified its "wildness." The railroad is one of our greatest civilizers, and where it goes, law and order usually are not long delayed in following.



Street Scene in an Old Settlement of New Mexico.

The Texas cattlemen always have had an efficient coöperative body for protection against marauders upon their herds in that unique organization known as the "Texas Rangers." This is a special corps of State soldiers that originated long ago for protecting the Texas frontier against Indians. After the danger from the red people became a thing of the past, the Rangers were the chief dependence for preserving order in the unorganized counties in the western sections of the State. The history of this body of men has been one of dangerous warfare, requiring great hardihood, absolute fearlessness in the face of danger, and a devotion to duty, especially in past years, unexcelled in the annals of border warfare. The rangers, even at the present time, are soldiers, and while they do not wear uniforms, their campaigning is not unlike that of a larger force of army soldiers constantly in the presence of a foe. They deal and have dealt not only with our own lawless element along the Texas-Mexico boundary, but with that of Mexico also. Mexico has her share of men who regard neither life nor property, and the Rio Grande is an easy river to cross.

But the rangers could not be everywhere at the same time, and Texas cattlemen had often to go on the war-path on their own account, to deal with rustlers and other undesirable people. As their methods were the same as those applied by their brethren over the range country, all the way to northern Montana, it is not necessary to go into details about them.

The most famous of the troubles of the cattlemen in the southern country was the "Lincoln county war" in New Mexico that broke out in 1878. Lincoln County then was about as large as the State of Pennsylvania, but as a civil organization it was scarcely more than a name. The war began in efforts of stockmen, prominent among whom was John S. Chisum, to protect their property against the depredations of desperate thieves, by which the country was overrun. But later it developed into a feudal or factional strife that became most bloody—a guerrilla warfare, in which outlawry took on a fiendish form, and hideous cruelty and lust of blood prevailed. The worst of the forces arrayed against the cattlemen was under the leadership of the infamous cut-throat, "Billy the Kid," a name that still is notorious in the Pecos River Valley. The Kid died a violent death at the ripe age of twenty-three and at that time had killed twenty-three men—one for each year of his horrible life—having committed his first murder when he was but fourteen years old. No one knew nor ever will know how many men perished in that awful affair. Chisum and his herds were the objectives of the campaign on the part of the organized outlaws. He was to be killed or driven out of the country. Instead of accepting the latter alternative, he prepared to fight, and collected around him other cattlemen and many cowboys, forming as brave a little army as ever existed on this earth—a band of devoted men, to whom the word "fear" had absolutely no meaning.

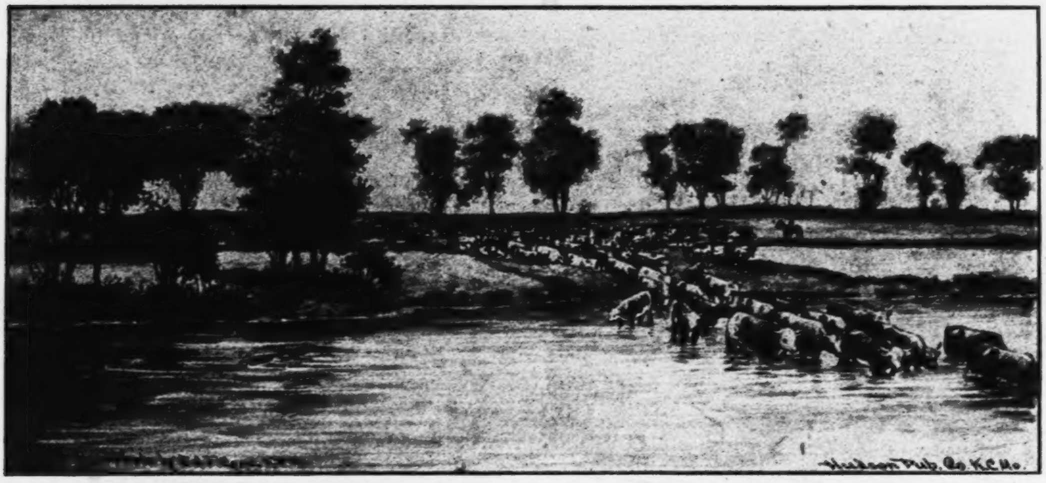
The thin population of the country was forced to take sides—to be for one or the other. As neither side had a uniform or distinguishing mark, it was difficult for any man to tell his friends from his foes. When two parties of these armed forces met, there had to be a statement of facts as to sides, and if they were not the same, it was a bloody fight then and there. If a lone man saw several men or a larger body approaching him, he had to guess mighty quick the side that he favored in that particular emergency. If he made a mistake, "it was all up with him." His body was left where it fell. The country became strewn with the skeletons of the victims. Man after man was killed by one side or the other, some of whom were innocent and ignorant of the causes of the troubles; causes that were forgotten even by those who were responsible for them. The lower work of the cattle stealing was abandoned for this fierce hunt for men.

Neither side knew how many men were arrayed against it. The bands of fighters were scattered over a wide stretch of country, and when they met, some on each side died with their boots on. At one time there was a battle in the county seat of Lincoln County between the cattlemen's forces and the gang under Billy the Kid, an affair in which the impotency of the civil government was startlingly reflected.

Finally, through exhaustion, the war died down and was resolved into a series of personal feuds, in which many more men were killed. Others left the country never to return. But the net result was the utter defeat of the outlaws. Billy the Kid was killed by Pat. Garrett, who had been elected Sheriff of Lincoln County expressly for that duty—a quiet, easy-speaking Irishman, with the heart and courage of a lion, who afterward became a stockman in the Pecos Valley.

But we have had enough of these outlines of the history of the rise and progress of the cattle-rustler of the great plains and of the tragedies and complications for which he was directly or indirectly responsible. While he is not yet an extinct creature, his opportunities for wrongdoing have been reduced nearly to the minimum. There are still some survivors of his class who are ready to take chances, but these chances have become so circumscribed and hedged about with difficulties, dangers, and legal penalties that they are hardly worth while.

Everywhere in the great cattle country of the West, efficient local government is in command. The old, wild, and "free" conditions have passed away. The country is not only civilized, but enlightened, and the "loose" notions of former times about the rights of property no longer "go," and the cattle-rustler is "handled" as a common thief. No longer is there a halo of "romance" thrown about his miserable calling, but he is thrown into jail and later sent to the penitentiary in the most prosaic fashion. The far-western States have most rigid laws applying to the offense, which is now a common-place felony, with striped clothing ahead of it. In each of the range States there are wide-awake associations of stockmen that will draw upon their treasuries with a liberal hand to right the wrongs of any one of their members. Further down are the district and the county associations, equally vigilant within their fields. Shipments of cattle are inspected at the receiving markets, and so perfect is the general system of these times that a range stockman will receive a check in payment for an animal, by inadvertence included in a shipment, and of the absence of which he had no knowledge. He is guarded and protected all around the horizon by the association of which he is a member, by keen-eyed men employed for that purpose and no other.



Texas Trail Herd Crossing the Arkansas River at the Present Site of Wichita, Kansas, in 1868.
(From an original photograph in possession of C. W. Merchant, Abilene, Texas.)

Shall we mourn and lament for "the good old days," the days in which it was every man for himself and the rustler for all? Hardly!

But once in a while even yet, the news reports of the daily newspapers include an item, perhaps sandwiched between an account of the doings of a politician of note and a description of a wreck on a railroad, that revives memories of the "good old days." One of these, sent out by the Associated Press in May, 1904, from Chamberlain, South Dakota, seemed like an echo from old times. It is a story of a tragedy, the victim of which was a cattle-rustler.

Jack Sully, according to the Press report, for many years had been the "terror" of the Rosebud country. "A week or ten days ago Sully stole a bunch of nearly 200 cattle belonging to various neighboring ranchers. He took seventy-five down across the Nebraska line and sold them for

$20.00 per head, receiving half cash and half paper." He cashed the paper. The owners of the cattle and a party of officers got after Jack. "They found Sully at his home, near Blackbird's Island, this morning, and attempted to make the arrest. Sully was ordered to surrender, but with a defiant taunt he made a break for his horse, sprung upon its back, and made a dash for liberty. For a time a running fire was maintained between the two parties, but the pursuers speedily proved the victors. Sully's horse was hit five times and killed, while Sully received wounds from which he died within thirty-five minutes. A coroner's inquest is now in progress in Gregory county."

The old, old story that brings back vividly memories of the years of the past when the like of it happened many and many a time. There may be readers of these pages who will experience a sentiment of regret that Jack did not succeed in getting away and learn to live a better life; but not so with the old range man whose life and property were jeopardized by the presence of the rustler. Between the range man and the cattle rustler there is an impassable gulf, and the day of complete relief from uneasiness on the cattle-range will never be witnessed until the rustler has made his exit, let us hope, never to return.

Archibald F. Crowley.

Books, as has aptly been said by a great writer, contain the treasured knowledge of the world. A book possesses an element of immortality, and books are by far the most lasting product of human endeavor. Nations perish, governments fade away, monuments of marble or bronze gradually yield to the disintegrating forces of heat, moisture, or frost, and the mightiest structures ever erected by the hand of man crumble into dust. Not so with the sublime thoughts of poets and philosophers or the enlightened utterances of men whose vision penetrates behind the curtain that shuts off the view of the ordinary mind. Equally true is it that the lesson of a useful life continues to live in the great heart of humanity. All experience teaches that every life makes a lasting impress upon the world, and every individual is responsible for the influence he exerts upon those about him. This personal responsibility is a mighty element in determining the career of a thinking man or woman, and if the sentiment is firmly implanted in the mind, it is one of the greatest blessings that can be desired.

This important element of personal responsibility is one of the first recollections of A. F. Crowley. At an early age, the death of his father impressed him with the importance of a serious view of life, and as soon as he was old enough to assist in the family affairs he assumed a place of responsibility that peculiarly fitted him for a career of helpfulness, which has been a prevailing trait of his character. One of the most industrious of men, he has gained, through close attention to business and courtesy to all he meets, a position in the live-stock business which few have reached at his age in this country.

Although for twenty years a range man, accustomed to life in the open air at all seasons of the year, and familiar with every phase of experience upon the vast range of West Texas, he was by natural adaptability attracted to the city, to contract with the growing traffic in live stock at the most important live-stock center of the Southwest. As manager of one of the great live-stock commission firms, he is daily in a position to put into practical application the knowledge he gained in earlier years. As a judge of cattle, few men equal Mr. Crowley, and his quiet and gentlemanly manner has a rare attractive quality which prepares the way for success in meeting with the business world. Under this pleasing exterior burns a steady enthusiasm which halts at no obstacle and rather delights in starting upon a difficult undertaking. Trained judgment and well-balanced reasoning powers are part of the equipment that Mr. Crowley brought to the commission business. When to these are added a character of known integrity and a goodly share of common sense, there is no doubt as to the result.

Mr. Crowley is a native of Texas. He was born in Tarrant County, of which Fort Worth is the county seat, June 15, 1861, and from the seventh to the fourteenth year of his age had the advantage of attending a country school a few months each year. The Crowley family originated in Ireland, and the branch from which J. F. Crowley descended, from his father's side, settled in Missouri. Hiram Crowley, the father, came to Texas in 1845 when quite a young man, and shortly before the Civil War was married to Seletia Leonard, daughter of Colonel D. F. Leonard, a wealthy stockman of Tarrant County, and one of the first Representatives of the State Legislature from that county. Three children blessed the union—Dizziana, who died at three years of age; Archibald Frank, and Hiram E. At the opening of the war Tarrant County, then almost upon the frontier, sent several companies of volunteers to assist in the Confederate cause. Hiram Crowley was a slave-owner and one of the large stockmen. His sympathies were with the South, and he enrolled a company, of which he was elected captain. He served in Arkansas and Louisiana, and was in command of two companies of Alexander's regiment of dismounted volunteers at the battle of Yellow Bayou, Louisiana, May 18, 1864, where he was mortally wounded. Two days later Captain Crowley died, leaving a widow and two sons. The eldest of the sons was three years and the youngest one year of age. Captain Crowley was a man of sterling character, good education, and of fine business ability. Had he lived he would have been a leader in the community. Among the cherished mementoes of his father, possessed by A. F. Crowley, are letters and army reports written by Captain Crowley when he was in camp. These mementoes are neatly framed, and will be handed down to succeeding generations of the family as sacred to the memory of one who gave his life in one of the most tremendous conflicts in the annals of history. No man has more clearly presented the issue for which Captain Crowley yielded his life than General John B. Gordon. He said, in summing up the question: "Truth, justice, and patriotism unite in proclaiming that both sides fought and suffered for liberty as bequeathed by their fathers—the one for liberty in the union of the States, the other for liberty in the independence of the States."

The close of the Civil War found Texas in a condition in some respects different from any other of the Southern States. She had not been ravaged by the hostile Federal armies, but for long and weary years the Indians had kept the frontier continually aroused, and immense losses had been inflicted upon live-stock men. The border had been defended by men as watchful and as fearless as ever lived, and the deeds of heroism and self-sacrifice along the Texas frontier have never been surpassed. The ability of the people of Texas to cope with difficulties has been a marked characteristic from the days of the Alamo; but thousands of the bravest sons of Texas had died in the battle-field; the resources of the State had been sorely tested in meeting exacting taxes of the war; property of all kinds had depreciated tremendously in value; and after the close of the war ten years of reconstruction inflicted wounds difficult indeed to heal. During this trying period, Frank, the oldest of the Crowley brothers, learned to work in the field, to care for horses and cattle, as his mother continued upon the farm, and was developing into a genuine cowboy, with love for the free range life and an ability to provide for himself which determined his future.

In 1876, at the age of fifteen, Frank Crowley and his brother, two years younger, started westward with a herd of one hundred cattle. The trip involved a journey of 100 miles to Palo Pinto County, where a new home was to be established upon the range. Mrs. Crowley had married Dr. J. B. McMurray, and a little tract of school land, forty acres in extent, was purchased as headquarters of the camp. Outside of this limited area was the great open range. The Indians had just retired from murderous incursions which had been in progress for fifteen years, and Palo Pinto County was the cowman's Elysium. Here many of the leaders in the cattle business had gained their first experience, and here it was that the Crowley brothers laid the foundation of their fortune. For five years Frank Crowley lived in a cabin, a large part of the time entirely alone, as his mother died in Tarrant County in June, 1878, and his brother, Hiram, was often absent at the market. Mr. Crowley looks back with pleasure to his experience in Palo Pinto County. The nearest neighbor was miles away, and the entire interest and attention of the young cowman was centered on the growing herd. He became an adept at distinguishing cattle by their flesh-marks, and reached such a degree of proficiency that having once noted in his mind the natural markings of an animal, he could quickly and unerringly point it out in a herd of several thousand. After being with a herd of 2,000 or 3,000 cattle for a few weeks he knew every animal. He became remarkably skillful in counting cattle "on the run," and being light and agile of body, a thorough horseman, and able to stand long physical exertion, he participated in the cattle-drives and round-ups with the keenest pleasure.

The Crowley brothers were the youngest cowmen operating independently on the range. They attended closely to business, and the herd yearly increased. Fifteen cattle of the original herd belonged to Frank. In 1879 the brothers received a legacy of $600 or $700 from their grandfather's estate, and they bought out the interest of their step-father in the herd. They maintained themselves by selling a few steers from time to time, and in the fall of 1881 the herd numbered 300 head.

"Palo Pinto County," said Mr. Crowley, "was the best location we could have selected when we entered the cattle business. We were received in a most friendly spirit by the cowmen, who were as generous and noble a body of men as I ever knew. There were a few little farms along the water-courses in the county, but the country was unfenced, and the range was as rich as the sun ever shone upon. We located two miles west of the present site of Gordon, and the winter pasture was so fine that the cattle fattened all winter. In the spring they were in better condition than in the fall. Our market was at Fort Worth, although we had opportunity of selling to large buyers as they passed through with herds gathered at different points in the range. We could also ship to St. Louis, as the railway had reached Fort Worth. Steers sold at 2½c per pound and weighed around 850 pounds at three years old."

The surface of Palo Pinto County is very much broken, and as a winter range it has never been excelled, so there was little loss on account of winter storms.

Mr. Crowley rode over a wide area in the course of the five years he kept bachelor's hall in the range country, and sometimes attended church where Parson George W. Slaughter delivered one of his stirring sermons. The parson was a unique figure on the frontier, and preached with the same energy that he injected into everything he attempted. Mr. Crowley remembers that the sermons were two or three hours long, and men and women came long distances not only to listen to the parson, but to attend the early camp-meetings and to participate in baptismal ceremonies, held on the banks of Palo Pinto's cool and clear streams.

It was while living in this county that Mr. Crowley became acquainted with Miss Annie L. Cowden, to whom he was married January 20, 1885. Mrs. Crowley is a member of the Cowden family of live-stock men—one of the best-known families of West Texas. Seven children have arrived at the home of Mr. and Mrs. Crowley, two of whom were called away. Robert Edwin, eighteen years of age, gives a fair promise of being a worthy successor of his father in the live-stock business. Leta, sixteen years of age, is attending college at Belton, where she has evinced rare talent as an artist. Edna, Allen F., and George S., are three younger members of the family—one of the happy homes of Texas, where each strives to make the family circle a true place of rest and enjoyment.

In the fall of 1881 Mr. Crowley began to enlarge his operations. He bought 400 head of cattle from Pollard & Cantrill. The amount involved was $4,000, and $1,000 was paid down and one year's time was given on the remainder. Within a few months he sold enough cows and calves to pay the obligation. The year following he traded his interest in the farm to his brother, and was now the owner of 700 cattle and fifteen ponies.

At twenty-one years of age Mr. Crowley had become an independent live-stock operator, and his good fortune was due mainly to his own exertions. He regards the wise and loving counsel of his mother as the greatest incentive to effort in his earlier years; but the principle of independence shown when a boy in starting up in business among strangers with none but a younger brother to assist him, is an evidence that the young cowman was controlled by correct principles. As a result of his observation and experience, he is a firm believer in the doctrine of self-help.

"It is better," said he, "that a young man start in life with a capital of $300 which he has made himself rather than to secure a position at a salary of $100 a month. No man should allow himself to remain permanently satisfied to work upon a salary. It is better for him to engage in a very small business of his own rather than to become fixed in a salaried position. I am an advocate that every young man should be ambitious to conduct a business of his own, and experience has shown that many a good man is ruined by dependence on a salary. There is a place for every man if he knows where to find it, and his duty is to keep his eyes open until he finds it."

The principle stated by Mr. Crowley is concurred in by many of the closest students of human progress, and commends itself to every thinking man. In putting this idea into operation in his own family Mr. Crowley encourages his sons to embark in small business transactions under his guidance, and the oldest son now owns 100 cattle, and is familiar with the modern methods of rearing and handling live stock. Not a few of the wide-awake live-stock men are imbibed with the same practical ideas of teaching their children, while still attending school, the difficult accomplishment of making and holding money. It is an accomplishment that is of vital force in life, and the young person who is imbued with right ideas on this subject is fairly launched on the road to success.

The encroachments of new-comers upon the Palo Pinto County range necessitated a movement further westward, and for several years Mr. Crowley, by successive steps, approached the west line of Texas until he finally established himself across the line in New Mexico where he remained for six years. Previous to this time he operated for eighteen months in Fisher County, trading his interest in the herd to J. B. Pendleton, of Strawn, Palo Pinto County, for a ranch and herd of cattle valued at $9,000. He next traded this ranch for a herd of cattle on the Sand Hills range, and moved his Palo Pinto herd to a region 100 miles north of Midland. In three years he had 1,800 head of cattle, selling out in 1890 to Cowden & Divers for $18,000. His next move was to buy an interest in a herd of 5,000 cattle belonging to Connell Brothers & Hilliard. He disposed of his interest at a handsome profit, and engaged in the mercantile business at Midland, under the firm name of Barron, Crowley & Co.

Prolonged drouths and depressions in the cattle business, existing from 1884 to 1894, caused Mr. Crowley to suffer heavy losses, and he accordingly engaged in buying cattle for Nelson Morris, who had started a great ranch in the country north of Midland. His next side line was as agent of a live-stock commission firm at Midland. He proved a good buyer and a correct judge of ages and quality of cattle. In 1898 Mr. Crowley accepted the position as State agent for the firm of Clay, Robinson & Co., and took up his residence in Fort Worth, continuing his operations on the range, which he has at no time relinquished. At the expiration of eighteen months, he became southwestern agent of the Mallory Commission Company, local agents reporting to him at the Fort Worth office. At the opening of the new packing plants in Fort Worth Mr. Crowley accepted the position of manager of the Fort Worth Live Stock Commission Company. Through consolidation of interests the business is now carried forward under title of the Cassidy Southwestern Commission Company. This company is the largest organization of the kind in Texas, and numbers among its stockholders seventy-five of the leading live-stock men of the Southwest.

On account of intimate knowledge of range and stock conditions and personal acquaintance with live-stock men, Mr. Crowley is especially adapted for the responsible position he holds. He is one of the familiar figures in the stock yards, and an abiding interest he evinces in the small shipper has attached to his office a highly desirable element of the trade—the man who in years to come may develop into the large live-stock raiser, able to ship by the trainload, and desirous of keeping in constant touch with the market. The market letters sent out weekly from the office of the Cassidy Southwestern Commission Company under direction of Mr. Crowley are models of fairness and correct information, and are so recognized by hundreds of patrons in Texas and adjoining territories. The business of the firm has grown handsomely as the market has increased, and has extended as the market has increased, and has extended considerably in handling calves and hogs as well as cattle. Mr. Crowley sees great possibilities in the development of Texas as a live-stock State, although the contraction of the range requires an entire change of methods.

"Fort Worth," said he, "is the best location in the South for a great packing center, and the next few years will see all the leading packing companies in operation at this point. The receipts of live stock at the yards show the largest gains ever known in any market during the same length of time, and everything in and about the stockyards and packing-houses speaks of improvement. There are live-stock men, especially men upon the range, who criticize the heads of the packing establishments severely for low prices now prevailing, but I am not among the critics. As I regard it, the packers are real friends of the live-stock producers, and have developed markets in this country and in all the civilized countries of the world that could never have been developed under the small competitive system of trade. In Texas the packers are obliged to meet with competition of the cotton seed oil mills, where many cattle are fattened and sold to local butchers. This is one of the developments of recent years. There is another feature in Texas that the packers must contend with and that is the difficulty of inducing purchasers to pay for good beef. An outsider might imagine that people in a cattle State eat the best meat, but this is a mistake. Many people in the South appear satisfied with an inferior grade of meat, and a campaign of education is constantly being carried on by the packing companies. This costs money, and, viewed from some standpoints, we may truly say the packers are developing the Texas market at a loss. In the end the public will be educated to call for the best grades of meat, and conditions of the trade may be as favorable in the South as in the North. Much of the fancy beef is now shipped North and East to find a market.

"One advantage to Texas of the location of the great packing plants in Fort Worth," continued Mr. Crowley, "is the large outlay of money by the packing companies within the State itself. The beneficial effect locally can hardly be estimated, and a large percentage of this outlay is distributed to other parts of Texas, so that the entire State receives the benefit. Money is a highly important factor in the promotion of comfort and happiness, and I have no doubt that the location of this great packing industry at Fort Worth has had a decided effect in increasing the happiness and well-being of thousands of families."

Mr. Crowley, although a young man, has lived through the period from the time of the open range to the time when all the land in West Texas is under fence or lease, and the cattle drive has become a thing of the past. He has traveled for months with the outfit, and has almost lived in the saddle during an entire season, riding the line, branding, or cutting out suitable animals for the market. He has passed through the experience of building fences on the great plains, digging wells, erecting windmills, where formerly there was no sign of water, and where buffaloes roamed at will for centuries before the first white explorer set foot in the country. Mr. Crowley has ridden on horseback for 500 miles west of Fort Worth when there was scarcely a habitation along the trail except the lonely dug-out, the home of an adventurous cowman.

South of Midland 100 miles, in Crocker County, Mr. Crowley maintains a herd of 4,000 grade-cattle, which is his main herd at the present time. He is extensively interested in real estate of Tarrant County, and his home on Summit Street, overlooking Fort Worth, is one of the most desirable locations in the city. From the humble log cabin of Palo Pinto County, to the elegant city residence, is a long stride. The road has had many disappointments and not a few victories, but the haven was at last reached—not through chance, for it is probable there is no such thing as chance in the world, but through a sincere, straightforward ambition, early implanted, to accomplish an honorable undertaking, and through the consecration of every energy to that purpose.

Extension of Sheep Raising Over the Range Country.

Old-Time Cattlemen's Hostility to the Sheep Business.—Present Great Importance of the Industry.—Freight Traffic on Pioneer Western Railroads.—Opportunities for Men of Small Means.—Low Prices of New Mexico Stock Sheep.—Inferiority of This Stock.—Sheep-Raising in Colorado.—Railroad Freight Rates from the Mountains to the East.—Railroad Accommodations for Sheepmen.—Professional Mexican Sheep-Shearers.—Range Sheep-Raising in Kansas, Nebraska, Utah, and Nevada.—Extension of Sheep-Raising Into the Northern Range Country.—Wyoming, Dakota, Montana, Idaho.—Sheep-Raising in Texas After the Civil War.—The Industry in the Indian Territory, New Mexico, and Arizona.—The Long-Standing Hostility of Cattlemen Toward Sheepmen.—Causes of the Difficulties.—Competition Really at the Bottom of Them.—The "Old West" Passing Out.

In a preceding part of this volume, in which the early history of range sheep-herding in our country has been told, we remarked, in leaving that subject, that it was not until after our Civil War that this industry began to attract the attention of northerly range stockmen and to be extended northward along the eastward base of the Rocky Mountains. However, for some years after the war this interest was neither very deep nor very general, and the northward advance of range flocks was comparatively slow. Most of the northern range stockmen at that time were absorbed in cattle-raising, and considered it the only business to which the great wild pasture-lands should be devoted. They resented the idea of running sheep over them: "If," they said, "a man wants to go into stock raising here, why does n't he do it with real range stock and leave the sheep to the Mexicans?"

The old-time cattlemen, cowboys included, had an extreme aversion to the sheep business, and looked upon those engaged in it with feelings of strong detestation and contempt. They considered it an occupation in which an American should not engage. It was no "fit" business for him. The general opinion of range cattlemen was that no man engaged in walking sheep could be a good citizen. He was a miserable being, whom it was quite correct to terrify or kill! "A popular contempt was entertained for 'sheep meat,' and anyone addicted to the habit of eating it was considered of degenerate tendency. The little cowtown hotel at times served this meat on its tables, but the very waiter-girls had scorn in their voices when they called to the cook through the kitchen window their order for a 'plate of sheep.'"

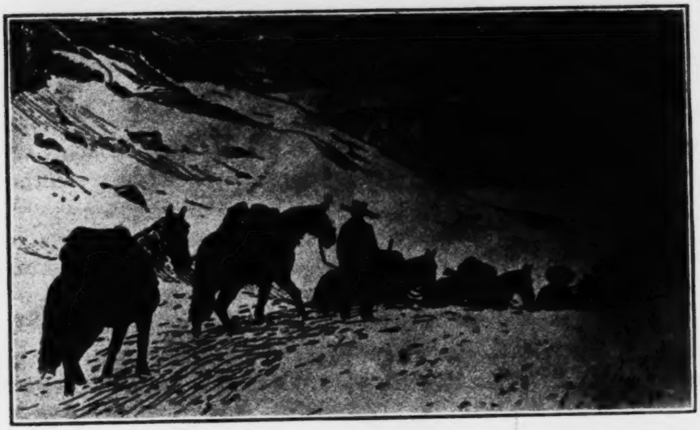
Yet in the face of such hostility as that implied by the foregoing, and against many violent physical demonstrations of deep-seated animosity, "the sheep business" has made its way into almost every section of the range country; and in many large parts of it, even in certain of the range States as a whole, it now predominates in importance over cattle, and therefore has taken the first rank in these States as a division of the live stock industry.

But upon these pages we shall limit our attention to its development in the range country subsequent to the Civil War to about the year 1880, in which period it slowly forced its way northward and farther northward until the flocks were feeding in the valleys of northern Montana and Idaho.

As the reader will recall, the Mormon pioneers had taken sheep into Utah in the late '40's and so were the first sheep raisers in any part of the great plateau region north of New Mexico. Their necessities in their isolated situation required them to give very careful attention to their sheep, but their flocks practically were limited in number to the needs of their own people. The California markets to which they made some drives did not afford a very practicable or profitable outlet for a surplus; and they had no other.

No great headway was made in extending the industry northward along the eastern base of the Rocky Mountains until after railroads had crossed the plains. Wagon-freight to the Missouri River practically was prohibitive to so bulky a commodity as wool, and even at the river the wool still would be a long distance from market. There were times in the days of the "prairie schooner" when the freight on merchandise from St. Joseph, Missouri, to the mountains was as high as 25 cents a pound—$25.00 for one hundredweight.

The pioneer railroads from the river to the mountains—the Union Pacific and the Kansas Pacific—were slow to realize that the plateau region could produce much freight other than cattle, and were dilatory in providing accommodations even for this class. The shipping of sheep to the meat-markets of the East was not thought of in the early railroad days, and the relatively small local population occasioned no great demand for mutton. In the beginning it was the belief of the managers of the Union Pacific Railway that the road's main dependence for freight traffic would be upon through shipments. It is said by a good authority that for several years after the completion of the transcontinental line formed by the Union Pacific and the Central Pacific roads, that 90 per cent. of the Union Pacific's freight business consisted of through shipments; leaving only 10 per cent. to represent the local traffic. But before the close of the decade of the '70's the freight conditions had been reversed: the local business amounting to 90 per cent. and the through business to 10 per cent.



Sheep Herd Crossing the Rocky Mountains in Mid-Winter.

Until past the middle of that decade much energy and ability was applied to arguments and demonstrations in figures to show that sheep *could* be raised at great profit on the northern ranges. As with certain of the "figuring" on the cattle business about that time, some of these demonstrations looked better on paper than the ever did elsewhere, but in the main they were more conservative than the others. One thing that they brought out clearly was that the range sheep business afforded extraordinary opportunities for men of small means; that at that time it was "emphatically a poor man's business." It was shown that a man who could command any sum from $500 upward could make himself master of the situation by the close of his first year's operations. Stock sheep were selling at very low prices in southern Colorado and in New Mexico, and that it was within the reach of men with no more than $500 or $600 cash capital successfully to get a start in range sheep-raising was proved by the experience of many who did so and eventually became masters of large flocks.

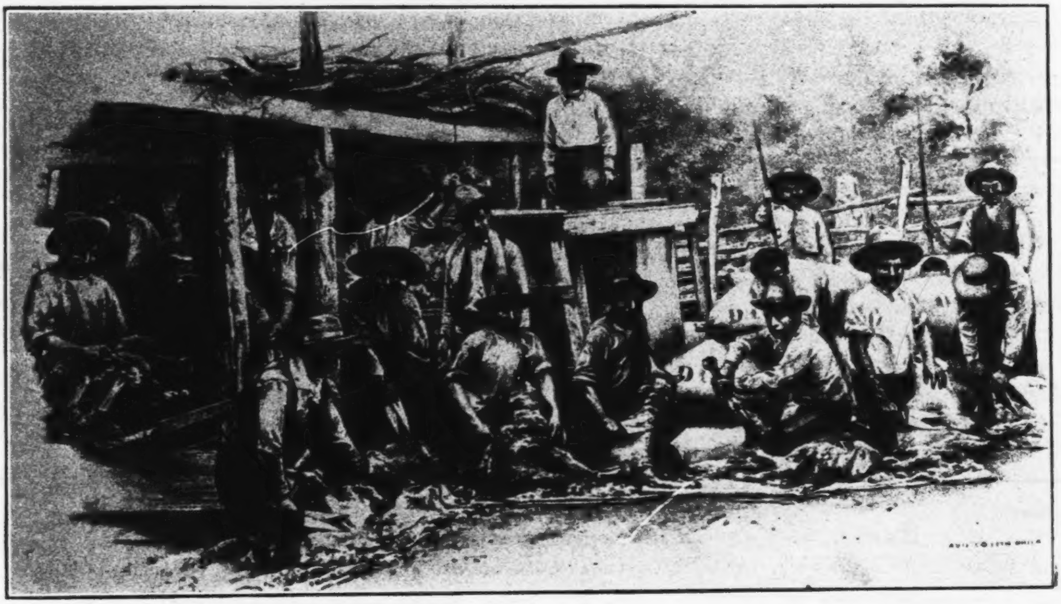
For about ten years after the Civil War New Mexico sheep occasionally sold as low as 75 cents per head, though the more common price was around $1.00. But after 1875, when range sheep raising had begun to attract general attention and a demand for stock sheep had arisen, the price went to from $1.50 to $2.00 per head. Toward the close of the decade New Mexico sheep crossed with merinos were worth from $2.00 to $2.50, while good graded sheep bred up, brought from $5.00 to $6.00 each; blooded rams being worth from $30.00 to $200.00 each.

The extension of the sheep raising industry over the plateau region was more rapid in Colorado than in the other political divisions. For some reason not very clear, the industry soon became commonly called "sheep-farming" in that Territory. Although the sheep-raising industry in the hands of Mexicans was well established in parts of the southern borders of Colorado at the time the Territory was organized (1861), the aggregate number of sheep was not very large. The flocks were small, and usually each was tended by its owner, alone. During the next ten years there was little, if any, increase in the number, but early in the '70's the possibilities of the industry for profits began to be appreciated, and this led to a rapid increase in the number of Colorado sheep. The earlier stocks were of the New Mexico variety. These sheep were the degenerated descendants of the stock brought from Spain into Mexico by the Spanish Conquerors, the animals being of good quality for that time. But in three centuries of neglect or indifference they had depreciated until they became a puny race, gaunt and small, and yielded only a few pounds of coarse felting wool annually, and also made poor mutton. But the American sheepmen of Colorado soon began to remedy these defects by introducing large and full-Merino and Cotswold rams, and in consequence of this the general quality of Colorado flocks was greatly improved. Before the close of the decade of the '70's the development of the industry in Colorado was without precedent in the plateau region. From the comparatively small number of sheep in the Territory in 1870—some say it really was less than 50,000—the State in 1880 had a total of above 2,000,000—a larger number than was in the State on January 1, 1904 (1,846,000). A great many men had gone into the business—men of small means and men of large capital. There were several sheep raisers in the northern parts of the State in 1879 who had flocks numbering from 10,000 to 15,000 head, while the Amigo Brothers, in the southern part of the State, had 50,000 (beside about 300,000 more in New Mexico). The crosses with full-Merinos and Cotswolds were yielding fleeces of from six to twelve pounds weight, while it cost no more to maintain them than it did to keep the unimproved stock. The Mexican sheepmen in the southern parts of the State, clinging to their hereditary conservatism, had not made great progress in improving their sheep, and while they now had many of them, their animals as a whole were deficient in quality and produced smaller market values. The sheepmen of northern Colorado in that period were enterprising: they drew from near and far for stock with which to replenish and enlarge their flocks, having in the spring of 1879 driven in about 30,000 sheep from California; and many of them took possession of two ranges for their flocks—one for summer and the other for winter. Some of them were cattlemen, also, and were getting rich in two directions. But the cattleman who in spirit was "true blue" considered it a matter of principle to have nothing to do with sheep. Nevertheless, Colorado in that period pointed to herself with swelling pride as "*the* sheep raising State of the West"; a position from which in later times she was deposed.

It may be of interest to our present-time western sheepmen to be reminded of the freight rates on sheep and dressed mutton from the base of the Rocky Mountains to Chicago and New York in the closing years of the '70's. Before that time there were three railroads across the plains from the Missouri River—the Union Pacific, the Kansas Pacific, and the Atchison, Topeka & Santa Fé. These roads, having awakened to the importance of the freight values produced by the live stock industry on the western ranges, had provided "double-decked" sheep-cars, carrying 200 fat sheep. The rate from the mountains to Chicago on live sheep was $150 per carload, thereby putting fat wethers into the Chicago market at 75 cents per head. The rate on dressed mutton carcases in refrigerator cars from the mountains to New York and corresponding eastern points was $1.75 per hundred in full carload lots—though a full carload then did not mean as much weight as it does in these days of bigger and heavier cars. These rates afforded sheep and mutton producers on the range a good margin of profit, for the cost of production was about as near the minimum as it could get anywhere in this or any other country.

The Union Pacific Railway, that formerly had been so indifferent to local freight business, took upon itself considerable trouble and expense in providing other accommodations for the sheep raisers. At convenient stations along its line, the company built shearing-sheds for use by sheepmen, who found it handier to drive their flocks to the railroad stations and shear them there than to do so at their ranches and then have the wool hauled to the railroad. They made their sheep transport the wool to the shipping-point. The shearing-sheds were large enough to accommodate from 30 to 100 shearers, and were lively places when business was going on in full blast. The company also built corrals of different sizes at the stations, in which waiting flocks were folded. Some of these pens were small, for use in shearing when the sheds were crowded up to their capacity.

Bands of "professional" sheep-shearers from New Mexico and the southern part of Colorado traveled north to find employment through the season. Most of them charged 5 cents for shearing a sheep, but some did it for 3. These shearers were a strange set, and year by year became more numerous. They clipped a fleece with wonderful rapidity and skill, going close to the skin, but rarely cutting it. They lived very simply, slept in the shearing-sheds or anywhere else that came handy, and as soon as they finished one job they were off to another in as much of a hurry as anybody born and bred in the New Mexico country ever cares to be. Beside their money-pay they expected daily a ration of "beverage" from their employer, and it was the general custom for the latter to provide it. After the close of the season they wandered back whence they had come, taking with them much the larger part of the wages they had earned.



A Group of Mexican Sheep Shearers.

While range sheep raising was having a great development in Colorado it was not commanding much attention in Kansas. The people of that State had not turned very much to sheep, though the western parts of the State were almost as favorable to them as the plains of Colorado. In 1875 the 82,080 square miles of Kansas had only 106,000 sheep, or about 1 2-7 sheep to each; in 1878 the number was 243,000; and in 1879, 311,000, or less than 4 to the square mile. In those years, as well as in more recent times, the Kansans more generally were taking to other kinds of live stock, having had in 1879 about 1,000,000 head of cattle and above 1,250,000 of hogs; in the production of the latter then standing eleventh in the United States and fourth in the western States—Iowa, Missouri, and Texas only having a larger number. But at that time much of far-western Kansas was occupied by cattlemen, and, while it was divided into counties, was unorganized. However, Kansas to-day is not much of a sheep State, the total number of sheep in it, according to the latest available figures (January 1, 1904), being only 263,000.

In that period sheep raising was, it seems, a neglected business also in Nebraska, and comparatively few sheep were put upon its pastures-land in the period which we have under consideration here. In 1877 its 76,855 square miles contained only 82,000 sheep, barely more than one to a square mile; in 1878 the number had risen to 135,000; and in 1879 to 162,000. As in the last-named year it had upward of 600,000 cattle and above 700,000 hogs, Nebraska did not in that period have a high rank as a sheep raising State. On January 1, 1904, it possessed 493,000 sheep, but as it had at this time more than 3,100,000 cattle and nearly 3,000,000 hogs, sheep raising still is in low rank as a branch of the live stock industry in Nebraska.

In Utah we find a quite different state of affairs prevailing in that period, the number of sheep being greater than that of any other variety of live stock. In 1875, using the most trustworthy available figures, there were 303,000 sheep in Utah; but, strange as it may appear, there was almost an equal number of goats. In that year "horned cattle" in Utah figured up a total of only 49,000; and of hogs there were about 28,000. It was estimated that the number of Utah sheep had, by 1879, increased to about 500,000. During the first half of the '70's the sheep taken into Utah mostly were from New Mexico, but later many were driven in from California, thus reversing the sheep movement of far earlier times. The California sheep improved the Utah stock, an example of this being shown in 1878 by the shearing in that year of 90,000 pounds of wool from a flock of 16,000 sheep, or an average of nearly six pounds from each animal. While this was one of the large flocks it was not the largest in the Territory of Utah, the firm of Hollister & Company then having a flock of above 20,000 on one range. The main dependence of the Utah sheepmen of that time was upon the wool, for we do not find that they shipped much dressed mutton out of the Territory. There were several woollen mills that made a considerable local demand for wool; as, for example, of the wool clip of 1878 of between 1,600,000 and 1,700,000 pounds, these mills consumed 400,000. These were about the only woollen mills in the entire plateau section at that time; and even to this day the Utah mills are the only ones of any importance in that region—an immense empire, almost destitute of manufacturing facilities for working up raw products. Of Utah sheep-values in the latter '70's, the following will be suggestive to the reader: "A flock of 5,000, costing from $2.00 to $2.50 each, including lambs, was picked up and taken to Montana in the spring of 1878. By the time they got there the lambs were worth as much as the sheep, reducing the cost-price of the flock in reality to about $1.50." This also tells us that Montana, at present swarming with sheep, was, as late as 1878, a market that promised a profit for flocks driven from as far as Utah. On January 1, 1904, Utah was credited with about 2,400,000 sheep.

The expansion of the sheep industry in Utah—or much the greater part of it—occurred in the last half of the '70's, and its growth within a few years was so rapid that Governor Emery became alarmed for the welfare of other stock raising interests there, as well as in the other plateau Territories of that period, having taken occasion to say:

"Another serious drawback to the stock-growers of this country are immense herds of sheep, which have been driven into the Territories from California. Large flocks of fifteen, twenty, and thirty thousand sheep not infrequently make their appearance here from the West. It is not so much the grass they eat that the settlers complain of, but they poison and kill out what is known here as the buffalo or bunch-grass, which is the only grass of any value indigenous to this soil. Where sheep range for one season, there is left a barren waste, upon which grass will not grow for several years after. If Congress would pass some law whereby parties can acquire rights to this pasturage, it would undoubtedly be a source of revenue to the government as well as to parties engaged in stock and wool growing."

This is part and parcel of the old, old story that is still involved in the unsolved western "land question"!

Next west of Utah is Nevada, the erstwhile "Silver State," now depending largely upon its stockmen. Once upon a time silver-mining was everything in Nevada; now the State's main reliance is upon what can be produced from its soil. The report of the State's Surveyor-General in 1879 made the following approximate estimate of the area of available productive lands in Nevada, according to his judgment:

	Acres
Approximate area of agricultural land	1,067,653
Approximate area of grazing land	9,708,060
Approximate area of timbered land	1,901,410
Mineral lands	1,261,600
Total	13,938,723

As the area of Nevada contains above 70,000,000 acres, this was not a very favorable showing, as the total is a little less than one-fifth of the area of the State. Later knowledge, combined with irrigation, improved the situation, but still an immense extent of Nevada remains to be exploited. Some sheep were taken into the Nevada country from California by the people who settled in the Carson Valley before the Civil War, but not many. Yet we learn from trustworthy official reports that in the late '70's sheep far outnumbered all other live stock animals in the State; their number in 1877 having been nearly 200,000; and in 1878 above 211,000. The number of cattle for those years was given as 99,000 and 174,000 respectively. Hogs appeared not to have taken kindly to Nevada in that period, as there were only 5,500 and 6,000 in the entire immense area of the State in the respective years. Since the '70's the sheepmen of Nevada have not stood still, for on January 1, 1904, they owned about 880,000 head; at which time the number of cattle in the State was about 400,000.

In Camp, En Route to Winter Range.

Turning now to the northerly divisions of the plateau region, we shall first consider Wyoming's attitude toward the sheep-raising industry in these earlier times. It was not one of great friendliness. True, it was comparatively a "new" country in the times with which we are dealing here—new and wild, and much of it but little known. However, so far as its live stock interests were concerned, cattle predominated. The cattle sent to Chicago and St. Louis from this Territory in 1880 sold for a little more than $2,000,000, while Wyoming wool in the same year yielded only about $250,000; or one-eighth as much. Accurate statistics of the live stock industry in Wyoming for any of the years of the '70's are not abundant. General James S. Brisbin (United States Army), in his book, "The Beef Bonanza" (1880), estimated that in 1880 there were 150,000 cattle and 100,000 sheep in Wyoming. The average price of wool at Laramie in 1879 was 29 cents per pound. The Wyoming sheepmen had been very negligent about improving the quality of their sheep, and therefore most of these still were of the small and scrawny New Mexico variety. Allowing for the average fleece from these sheep a weight of as much as 3½ pounds, and applying to this wool the Laramie price of 29 cents per pound, the value of each sheep's wool was about $1.01. As about $250,000 worth of wool was marketed from Wyoming in 1880, it would indicate that General Brisbin's estimate of the number of sheep in the Territory in that year was much too small; it probably should have been approximately about as many sheep as there were dollars in the returns from the sales of Wyoming wool in the year to which he refers. However, the hostility of the Wyoming cattlemen to the sheep industry was exceedingly great in these earlier years, and they left little undone to discourage it. On January 1, 1904, Wyoming had 4,600,000 sheep arrayed against 823,000 head of cattle. It is a great State for live stock, and no one can tell in a way that is worth while, how much greater it will become. It can hardly be considered as in a "developed" condition at the present time. That it will become a still greater stock country, no one doubts; but its full possibilities still are slumbering in the chambers of the future.

Previous to 1880, range sheep-herding in the Territory of Dakota, that later was divided into the present two Dakota States, was next to unknown. The immense pasture-lands of that Territory were about the last in the northern country to become generally occupied by cattlemen, because of danger from Indians. Furthermore, Dakota was believed to be not so favorable to sheep-raising as Wyoming and Montana; and, indeed, it was long supposed not to be favorable to anything that civilized white men might care to do. There are no acceptable statistics bearing upon the sheep-raising industry in Dakota before 1880, and it appears that nearly all of the sheep which were in the Territory earlier than that year were those that were kept by the settlers on their farms. General interest in affairs identified with the soil very largely were centered upon wheat-raising and cattle; the development of sheep-raising that has resulted in the present (January 1, 1904) 836,000 head in North Dakota and 927,000 in South Dakota having been, in the main, the work of later years.

In 1870 the Territory of Montana possessed, or claimed to have, 36,738 cattle and 2,024 sheep —figures that impress one as representing the results of a very exact count. On January 1, 1904, the Department of Agriculture at Washington credited the State of Montana with 5,270,000 sheep—much the largest number in any of the divisions of the Union and nearly five times the number of its cattle. It was rather late in the '70's before sheep rose to a position of importance in Montana, as compared with that of cattle. In that period many thousands were driven into the western part of the Territory from California, Oregon, and Washington Territory and sold to men who already had made a beginning with sheep, or were about to do so. In 1876 a man named Burgess drove a herd of 1,400 sheep from California into southwestern Montana when Sitting Bull and his hostile Sioux were in the country. But he eluded the Indians and made his way with his sheep down the Yellowstone Valley to the site of the present Miles City, where they were sold and put on a range near by in the Tongue River Valley. Up to 1877 only one experiment in sheep-raising had been made in the Valley of the Yellowstone and that not on a very large scale. The Territory still was without a railroad, but the Northern Pacific soon afterward came in. This was followed by a very rapid increase in the number of Montana flocks. But even in advance of the road's actual presence the sheepmen disputed the possession of the Yellowstone Valley with the cattlemen, and many of them pushed into regions with their flocks, where, but a few years before, Sitting Bull's young men would have eaten all the sheep and scalped all the shepherds. Montana soon was overrun by stockmen, and its range sheep-raisers appear to have been nearer the rank of actual pioneers than those of any other part of the northern country.

Idaho, that had on January 1, 1904, 3,588,000 sheep, had comparatively few before 1880. In proportion to its area, it has at present more sheep than Montana. Historical data concerning the early range sheepmen of Idaho are exceedingly scarce. During the period between the Civil War and 1880, the Territory had a slow development, and the chief interest of most of the people in it was directed toward mining. Various Mormon communities had settled in its southern part—off-shoots from Utah, and between these people and the "Gentile" settlers there was for many years considerable friction. The Mormons, of course, were supplied with sheep, and eventually became owners of large flocks. But the industry did not become conspicuous in the Territory in the period dealt with on these pages. In an official document issued in 1878 it is said: "There are not many sheep raised in the Territory, but the business is a good one." It then goes on to tell what a sheep raiser had accomplished within a few years, and refers to his flock of 2,300 head as one being especially worthy of note. In 1875-'79-'80, California and Oregon sheepmen, perhaps accepting the official statement that "the business is a good one," drove many herds into the Territory and put them on range in some of its numerous valleys. But several years earlier some flocks were driven from New Mexico and Colorado into southeastern Idaho, these being of a grade inferior to the California and Oregon stock. The present great proportions of the sheep-raising industry in Idaho really represent a development accomplished within the last twenty years.

While the sheep were spreading themselves over the central and northern parts of the great plateau they were multiplying over and over again in Texas, a land that their kind had been inhabiting from the old mission times. During the Civil War, sheep-raising, as well as that of cattle, was demoralized and sheep-values laid low. The State was almost destitute of facilities for converting raw wool into cloth, and with so many cattle to supply them with beef, the people did not consume much mutton. But after the war, sheep-raising took on new life in the State, and the flocks increased in number and size at a remarkably rapid rate. Before the war the industry largely had been in the hands of Mexicans, but now many of the American citizens of the State became interested in it. The small amount of cash capital with which a

In Lambing Time.

beginning could be made on the free pastures induced a large number of the immigrants who were settling in the State to engage in it. They were combatted by the cattlemen all along the line, but could not be suppressed. By 1879 there were 4,560,000 sheep in Texas, the great majority of them being on the open range; and in 1880 the number had increased to 5,200,000, from which about 12,000,000 pounds of wool were sold. In these years the money-value of Texas sheep ranged from $1.75 to $2.00 per head —rather low prices. But the average grade was not high. Most of the animals still were of the unimproved Mexican type—small and scraggy. In many instances the average fleece from a flock was no more than two pounds weight, and there was any number of individuals that yielded but one and a half pounds. Flocks that averaged, as some did, three and one-half pounds, occasioned wide-spread comment. But invariably these were of sheep among which the work of improving the general qualities of the animals, that has been carried so far in later times, had begun to show good results. At the time named wool was the main consideration in raising sheep in Texas, and to a great extent still is so, mutton production being regarded as of minor importance. However, the industry at present is not of the magnitude it attained in the past, the number of sheep in Texas on January 1, 1904, being 1,667,000. Cattle have overshadowed them. Of these the number in 1880 was 4,464,000—less than that of the sheep; on January 1, 1904, it was 8,910,000.

Sheep-raising in the Indian Territory had not made much progress before 1880 among the people for whom the Territory was set apart. Some white men were pasturing flocks on Indian land, but there is no data as to the number of their sheep. In 1879 the five civilized tribes—the Cherokees, Choctaws, Creeks, Chickasaws, and Seminoles—had 32,000 sheep among them, which number represented about all of Indian ownership in the Territory. These same tribes at that time possessed about 275,000 head of cattle and nearly 200,000 hogs.

New Mexico, "the land of the shepherd," not only held its own in the sheep business during the fifteen years we are here considering, but advanced it far—very far, indeed, if we may accept a statement made by Henry M. Atkinson, Surveyor-General of New Mexico, in a report dated August 27, 1879, in which he gives a summary of agricultural and pastoral conditions in the new Territory. His estimate of the number of sheep would seem to have been much exaggerated, but we give it as it appears in his report:

"The business of stock-raising is most successfully and profitably engaged in, as no feeding is required during the winter season, the stock subsisting entirely upon the rich and nutritious grasses so abundant in the Territory. It is estimated that there are 500,000 head of cattle and 10,000,000 sheep in New Mexico."

However, as New Mexico always has had a great plenty of sheep, a few millions added when figures are put on paper need cause no disturbance. Yet, as we have seen, as high as 300,000 head were of one ownership in that period, in which New Mexico was drawn upon for range stock-sheep from near and far. Thousands and tens of thousands were driven to ranges in the North. In those days New Mexico with her sheep was like Texas with her cattle—no matter how many were taken away there always seemed to be an over-abundance left. At the beginning of 1904 the Territory had 3,860,000 sheep, according to the report of the Department of Agriculture.

At the same time Arizona had 1,088,000 sheep. This, as in the case of Idaho, represents a development made within the last twenty years. Perhaps it would be better to say within the last fifteen years. The Spanish missionaries took sheep into the Arizona country long ago, but the sheep raising industry, as our stockmen understand the term, is a recent thing in Arizona.

From the early days of stock-raising on the ranges in the West there have been turmoil and conflict between the cattlemen and the sheepmen. The trouble began in Texas between the pioneers in the two industries, and as the rival interests spread their operations farther and farther over the country, the dissension and strife went with them. The old-time cattleman of Texas had many difficulties to overcome, many exasperating conditions to meet, many losses to bear, but none of these so stirred him up as the presence of a single sheepman on the outskirts of his range. The sheepman's right to be there with his flock was identical with that of the cattleman —neither weaker nor stronger, as a matter of actual right. Neither of them owned the land upon which the flocks and herds were grazing. But, as the cow people usually went in advance of all others in occupying new range—as the Indians and buffalos got out of the way, they built up a strong belief in the justice of their claims to the right of exclusive possession of the pasture-lands on which their herds were grazing. So long as they could maintain this position, they would have no competition for the use of the land.

Competition was at the bottom of the trouble. The sheepmen were competitors. Instead of the methods usually adopted by competitors in efforts to outdo and undo each other in settled communities, the conflict between the cattlemen and sheepmen was conducted along lines and by ways and means in which the harshness of new-country conditions was reflected—conditions in which men depend upon themselves for protection of what they believe to be their "rights," and not upon the processes of law and the decisions of juries.

The cattlemen thought that as they had come in first and taken possession of the land they were entitled to its use. They had been pioneers, had divided up the range between themselves upon a satisfactory basis, and had settled down to the routine of ranch life. For years the cattlemen insisted that "cattle and sheep can not live together on the same range. The latter not only eat down the grass so closely that nothing is left for the cattle, but they also leave an odor which is very offensive to the others for at least two seasons afterward."

The "rustler war" in Wyoming in 1892 attracted national attention and threw many of the newspapers of the country into convulsions, yet it was a trivial affair in comparison with the consequences of the strife between cattlemen and sheepmen. This has received little attention from the public. It has not been theatrical, but tragic. The common notion, so far as public knowledge of these matters has gone, that the sheepmen always have been the victims, a sort of non-resisting body of men, who "would rather be right than be alive," or be President, is a mistake. They have fought for their "rights," and among the unmarked, obliterated graves scattered everywhere over the great prairie land of the West, those of cowmen who died at the hands of sheepmen in defense of what they regarded as *their* "rights" are not uncommon.

A Sheep Herd of the Socorro Company, New Mexico.

The cattlemen regarded the range sheep industry as their great enemy. Its ways were different from the ways of their business, and beside this they had inherited or derived from their brethren in Texas a dislike for it, a feeling on the part of the latter that partly was due to race or caste prejudice, and partly to recollections or transmitted knowledge of the Texan struggle for independence. Your true Texan never has forgotten the butcheries of the Alamo and of Goliad. Nearly all of the sheep-herders known to the old Texas cattlemen were Mexicans, and although these herders may never have heard of Goliad or the Alamo, the thought came into the mind of the Texan when he saw a Mexican sheepman prowling around on the range with a flock of sheep. He disliked him for the memories he revived as well as for his sheep. In later times Texas cattlemen and cowboys were to be found in every part of the range country, and wherever they went they told the story of their deep-seated hostility to sheep and sheepmen. So it became one of the traditions of the cattle industry on the plains that cattlemen could not fellowship with sheepmen; that they could not dwell together.

But there were other reasons, too. It is one of the inborn traits of the sheep to eat grass down close, to nibble until there is little left above ground—a trait inherited from its remote mountain ancestry. A great flock of sheep leaves signs of its passage over a range-pasture in the stubs of close-bitten vegetation. When feeding, such a flock as a body keeps in motion. The individuals of a herd of cattle may move here and there and in and out, while the body as a whole may shift itself very little. But sheep when they are on their legs want to be moving, and in the old days of the open range a flock might feed forward over several hundred miles between spring and autumn. So the range shepherd became known as a man who "walked" sheep, for whom no cowman had a kindly greeting. It was no uncommon thing for a great flock of sheep or several flocks to eat out a large district of pasture-land so bare that the cattle in it had to be removed to save them from starving. The cattlemen, in their indignation over such a thing, forgot that the sheepman had precisely the same right to the natural pastures for their sheep that they had for their cattle.

As to the odor, repugnant to cattle, that sheep were accused of leaving behind them on the ground and stubble in such strength that its taint was perceptible to cattle two seasons later, there has been much discussion among practical stockmen. We have referred in an early part of this volume to the interdigital gland in the foot of the sheep that secretes a fatty or oily odorous substance, which exudes from the orifice of the gland, as need for the relief of the latter arises. Many stockmen deny that sheep leave any taint upon pastures that is permanent in the sense of being so for even a few days or a week, and others do not admit it for any period of time, declaring that if a flock of sheep gives off any odor it is nothing more serious than that arising from their wool, which the wind blows away. On the other hand, experienced cattlemen say that they have had undoubtable evidence that the taint left behind by a flock of sheep, endured upon the pasturage to a degree offensive to cattle as long as the second season afterward.

However, these matters really were "side issues." The main thing underlying the troubles was competition for possession of the land, and after all the fighting, the question had to be settled by considerations of practical utilization of the soil—which side, or who, could make it produce the most.

In former times when it became known by cattlemen of a given section of range country that a large herd of sheep was "coming in," they joined hands to repel the "invader." Emissaries were sent forth to warn the sheepmen to turn back and to keep on going back indefinitely. Sometimes the sheepmen turned and sometimes they did not. To a very great extent in the free-grass era, might determined questions of right on the range. If the shepherds turned not back, but defied the enemy, there was likely to be considerable shooting, in which, if no human lives were sacrificed, many of the sheep would be killed if the cattlemen controlled the situation. The sheep were ridden down, shot, clubbed or disposed of in any other handy way. The slaughter of the sheep was intended to emphasize the warning that had been given and not heeded. In many instances flocks were driven into ravines or into box cañons by cowboys and slaughtered, perhaps to the last animal, and the men who had been in charge of them given a very short time to get out of the country. It was all a matter of might, and there were no discussions as to the right or wrong of it. That was the way in which many other differences of opinion were determined on the range in those days. A lonely shepherd with a small bunch of sheep might be discovered sitting on a hillside off yonder with his sheep near him—a "little" fellow, concerning whom it was not worth while to have a conference. If the shepherd had his eyes open, presently he would see a puff of dust spring up from the dry soil a few yards down the hillside, perhaps to his right or maybe to his left. If he kept his place and used his eyes he would see, within a minute or two, another puff of dust, not only nearer to him, but nearer in line with him. The cowboys were not wasting ammunition in getting the solitary shepherd's "range." Usually they could plant their lead about where they wanted it to go, from any reasonable distance. The puffs of dust were hints to the "little" fellow from considerate cowboys that there was a place somewhere far away in which sheep-raising could be carried on to better advantage than on that hillside or, indeed, anywhere in that part of the country. If the solitary shepherd were a prudent man, he would not stand upon the order of his going, for the next puff of dust might arise from his weather-beaten coat. The "little" fellow "had no show at all"; still, if his presence were tolerated he would soon be joined by a bigger one, and these by other bigger ones—and then, "Where will our cattle be?"

It was all a matter of might in a fierce competition, carried on according to conditions then prevailing in the West as to what a man was justified in doing, even what it was his duty to do, "if he was any kind of a *man*," in "protectin' his rights."

So this strife between the two interests went on, year after year, but each year, as we have seen, found the sheepmen in advance of the place they had held the year before; and, in years later than those we have had under consideration, this advance has steadily been maintained, with results that require large figures for their expression.

Sheep Ranch Near Conway, North Dakota.

The "old West" has passed out: it passed out some years ago. Once in a while a few men who do not know that this is so, show up and behave accordingly. Might is no longer the arbiter of right. The law tries to settle that, and the organizations of stockmen, those of sheep-raisers as well as cattlemen, lend it every assistance within their power. Never again will the ways of the "good old days" in the West come back, and it is entirely safe to say that no sane man would want them to return.

Returning for a moment, in conclusion, to our main subject, it has been said by a distinguished authority that the Rocky Mountain, or otherwise the great plateau, country, in the western part of the United States, "doubtless is the best sheep-growing region on the American continent, and likely in the world, and is capable of growing more sheep and cheaper than all the rest of the United States together. In that high region sheep are less subject to the numerous diseases that afflict their species, than in the lower and older of the States, and there our people may expect to see the highest development of sheep husbandry in our country, and probably also upon this globe on which we live."

Captain John T. Lytle.

When the history of the growth of the great Southwest is considered, there rise in the imagination the figures of men who in a notable degree contributed to the mighty work. In rapid procession the forms pass in review, and the mind pauses in wonder as it contemplates the achievements wrought by pioneers, many of whom have passed away. It has been said that the rough work of the world has been accomplished, the uneven roads have been smoothed, and the crooked paths made straight. A new generation enjoys the results wrought by hardy spirits who braved the dangers of the wilderness and prepared the way for the conveniences and comforts of to-day. As one reads of the deeds of the early cowmen he is tempted to exclaim; "Surely, there were mighty men in those days! Is it possible that the human race is deteriorating?"

"No," it may be replied, "the human race is not deteriorating. The race may be depended upon to rise to meet the emergency; but during recent years no occasion has developed in America calling for remarkable exertions." When the hour arrives, the response will be quickly forthcoming, and in the meantime it may be profitable to study the lives of men who accomplished something—who occupied an advanced position in the line of battle, and who performed their duty to the full measure of their ability.

In the list of the men whose names will be permanently recorded in the annals of the cattle industry is that of Captain John T. Lytle. At the present time, secretary and general manager of the Texas Cattle Raisers Association, Captain Lytle is one of the most widely known men of Texas, and is recoognized as one of the best informed men upon certain phases of live-stock matters that can be found in the world. His innate modesty has prevented the general public from knowing of the remarkable work he accomplished and the success he achieved in a time when unusual mental and physical ability was necessary. For fifteen years Captain Lytle directed the movement of thousands of Texas Longhorns upon the trail. During that time he handled 450,000 cattle which he delivered to buyers in Kansas, Colorado, Montana, and other parts of the North. From 1871 to 1887 he directed investments in live stock, aggregating $9,000,000, and in that time had charge of thousands of men upon the cattle-trail.

Captain Lytle may justly be named as one of the greatest trailmen the Southwest has known. He was successful in his management, and the foundation of more than one large fortune was due to the business judgment of the man who now, under general supervision of a highly efficient board of directors, manages the affairs of the greatest practical business protective organization in the world; an organization that maintains forty-six expert inspectors in the field, and expends more than $50,000 a year in looking after the interests of fifteen hundred members.

Captain Lytle is a native of Pennsylvania, but in youth he took up his home in Texas, where he has spent the greater part of his life. He was one of the young soldiers of the Confederacy. At the close of the war he returned to the frontier, where he became familiar with a life of hardship and adventure, and developed a strength of judgment that easily made him a leader. The mantle of leadership, however, rested lightly upon the shoulders of Captain Lytle, for he never asked a man to do a thing he would hesitate to do himself. Industrious, persevering, honest, and trustworthy, he inspired similar principles in those with whom he was associated, and the trailman became the owner of ranches and herds whose names are familiar among the cowmen of Texas. A man who retains the friends of earlier days as his hair begins to whiten, and whose name is mentioned with kindly sentiments by friends far away, is always a man of noble spirit and enduring worth. Captain Lytle belongs to this fortunate class.

Born at McSherry's Town, Pennsylvania, October 8, 1844, Captain Lytle lived for sixteen years in the North, when the glowing letters of an uncle residing in Texas induced the family to decide upon a change of surroundings. Bexar, Bear County, was the objective point, and the journey was an interesting contrast to the trip which can be performed within three days at the present time. The family traveled on railway to Baltimore, and thence to Parkersburg, West Virginia, where the steamer *John W. Mason* furnished means of transit as far as Cincinnati. There the passengers were transferred to the steamer *N. W. Thomas*, which conveyed them to New Orleans, where another change was necessary in order to reach Indianola. From this point a small boat carried the passengers to Port Lavaca, and the remainder of the long journey was accomplished by private conveyance. To a youth of sixteen the trip was highly interesting and exciting, especially as it was his first glimpse of the great world in which he was so soon to take an active part.

The family of which John T. Lytle was a member consisted of the parents and six children. Francis Lytle, the father of John T., was a member of a well-known Maryland family, and followed for years in the North the profession of school-teacher. The mother of Captain Lytle before her marriage was Margaret Collins.

Upon arriving at Bexar, John began working on his uncle's ranch, spending eight months later in the county clerk's office at San Antonio. Owing to the absence of his cousin, Samuel, as captain in the army, he was again called to the ranch, where he remained until 1863. He then, at eighteen years of age, enlisted in the three years' service of the Confederacy, and was enrolled in Company H, 32d Texas Cavalry, Woods' Regiment. This regiment served with De Bray's brigade in the Trans-Mississippi Department until the close of the war. Returning home, the young man spent two years upon the ranch, and then he began live-stock operations on his own account.

On the 6th of June, 1869, he was married to Elizabeth Noonan, sister of Judge Noonan, a prominent attorney of Medina County. Two children were born to the couple—George N., now ranching in Texas and Mexico, and a daughter, Helen. Mrs. Lytle died in 1876. The home of Captain Lytle has been for more than forty years principally in Medina County.

The noblest thing in the world is honest labor. All the heroes are not men who gained their laurels on the field of battle. The hero whose glories will be sung as men become more enlightened, is the one who scatters blessings of peace and prosperity and happiness. The man whose strong arm and clear brain assist in making the desert blossom, and who endeavors by an active life to advance the permanent material interest of the community, is a real hero. Captain Lytle was reared in an atmosphere of labor and he never saw the time when he shirked any responsibility. In 1871 he had gained an experience in the ranch and live-stock business that warranted a wider field. He went upon the cattle-trail. At that time more than a hundred herds of Texas cattle were being sent north each spring. Great highways had been opened and an immense business was developing. The meat supply of a large part of the nation was being drawn from the plains of Texas and stock yards were being established, out of which grew the meat-packing industry. The business of buying cattle in the breeding-grounds and driving them on foot to the nearest railway shipping points was taking substantial form, and Captain Lytle, just past twenty-seven years of age, entered upon the work with a vim that insured success. His ability and trustworthiness met with a prompt response from men who had money for investment in range cattle and who knew, if the cattle were rightly handled on the trail, they would reach Kansas practically in condition for the market. Captain Lytle visited many parts of Texas during the fall and winter seasons, made purchases of cattle for delivery at designated points and in the spring he made the trip over the trail or reached the North by a quicker route, to arrange with buyers for the reception of the trail herds. Having completed the details, he would start southward and meet the cattle on their northward journey. As the years advanced and the business increased, he had as many as twenty-five or thirty-five herds upon the trail in a single season, involving a very large outlay in equipment and horses and requiring hundreds of men. His estimate of the number of cattle delivered from Texas by himself and business associates is as follows:

Up to 1876 and including that year, 6,000; in 1877, 15,000; in 1878, 22,000; in 1879, 25,000; in 1880, 40,000; in 1881, 50,000; in 1882, 50,000; in 1883, 70,000; in 1884 (the record-breaking year), 91,000; in 1885, 40,000; in 1886, 25,000; and in 1887, 12,000; a total of 450,000 cattle, delivered in sixteen years.

The falling off in the trail movement was caused by the construction of railroads into Texas, the increasing supply of cattle from the Northwest and the vigorous opposition of settlers who located in Kansas along the route of the cattle trails.

Captain Lytle had several partners in the trail business; among whom may be mentioned T. M. McDaniel, Charles Schreiner, and John W. Light. The Schreiner-Lytle brand—the SL brand—and the Lytle-McDaniel brand, became widely known throughout Texas, and the credit of the firms was such that great transactions were conducted upon verbal contract. It was the business of Captain Lytle to pass upon the cattle on the Texas ranges and to negotiate their sale to Northern buyers. Ogalalla, an important crossing of the Platte River in Western Nebraska, was the principal point at which the cattle were delivered, although deliveries were sometimes made in Dakota or in Montana.

In the course of his extensive operations Captain Lytle opened two trails, one from Fort Griffin to Dodge City and the other from Buffalo, Kansas, to Ogalalla.

The long drive of 1,100 or 1,200 miles from South Texas required from eighty to ninety days, and called for constant watchfulness, the exercise of cool judgment, and a courage in times of danger that never faltered.

"We sent out from 1,000 to 5,500 cattle in a herd," said Captain Lytle, "but the ordinary number was 3,000 to 3,800. It was our custom to select a foreman for each herd, and he named ten men—eight drivers, a cook, and a man in charge of the horses, known as the wrangler. We allowed 100 horses to the outfit, and the cook had charge of the wagon which carried the provisions. The herds were collected along the coast and in counties as far north as McCullough County. In the early days all the men were armed with Winchesters. The bosses of the herds were a remarkable class of men, absolutely honorable and thoroughly reliable. They were all men of experience on the trail, and this was necessary, when one bears in mind that the herd of cattle was worth $60,000 or more. Our confidence in the bosses was such that we never worried after a herd was fairly started on the trail.

"The cost of sending cattle over the trail was about $1.25 per head; the cost of railway is about $4.00 a head. The advantage of the trail also was that under ordinary conditions the cattle arrived at the end of the journey in better condition than when they started. Many of the herds were ready for the slaughter-pens when they reached Kansas. The average length of a day's drive for our herds was fifteen miles, although we drove as far as thirty miles in a day when necessary. Our orders were to keep the cattle full of water and grass, for there is no danger of a stampede when cattle are well fed and watered. We aimed to give our cattle plenty of room for bedding-ground and to study their habits, so that they appeared to have their own way on the trail. The Texas Long-horn is easier to handle when skillfully driven in a herd than the modern higher bred cattle. The Long-horn has lots of sense, and after a herd was on the road a short time, it divided up into leaders, swing cattle, and rear cattle, and in that order the trip was made to the North. If we found the leaders in their usual places it was not necessary to count the herd. One of the most striking sights in the world is a herd of 3,000 cattle on their bedding-ground at night. It is a sight that never fails to rouse the enthusiasm of an old cowman."

Continuing, the veteran trailman said: "We usually aimed to start the herds in April, although one season we sent a herd north which reached the destination on the 25th of May. At another time we delivered a herd of 3,000 beef steers from South Texas to Fort Thompson on the Missouri River, above Yankton, on the 18th of June. In another spring one of our herds crossed the Arkansas River at Dodge City on the 11th of May. Of course the drive was made under very favorable conditions. In 1875 I opened the trail from Buffalo to Ogalalla, and in 1876 the trail from Fort Griffin to Dodge City, known as the Fort Griffin Trail, a distance of 400 or 500 miles. We crossed the Colorado River at Flat Rock Crossing, and passed over where Coleman City now is located. Previous to that time the cattle from South Texas had been driven through Fort Worth and over the Chisholm Trail. Our route led us by where Vernon now is, by Fort Supply, finally crossing the Arkansas River at Dodge City."

Up to 1877, according to Captain Lytle, the prices of cattle in Texas ranged about as follows: Yearlings, $3.00; two-year-olds, $6.00; cows and three-year-olds, $9.00; beef cattle, $11.00. Texas cattle speculators made more money at those prices than afterwards when competition became more active and prices advanced. Money for cattle purposes drew twelve per cent interest in Texas. Fluctuations of the market inflicted heavy losses at times in the trail industry, although, upon the whole, it was highly profitable, and many fortunes were built up by trailmen.

Captain Lytle saw many herds of buffaloes while on the trail, and was on the plains when the buffalo-hunters with their heavy, long-range guns were conducting their campaign of rapid extermination. Fort Griffin, Shackelford County, Texas, was a favorite supply station for buffalo hunters, and great stacks of dried buffalo hides were piled in the vicinity of the fort. Immense quantities of ammunition were distributed, and owners of supply houses maintained parties of men in the field for several years until all that was left of the great herds of the "original cattle of the plains" was the whitening bones which could be traced in places during an entire day's journey. The wild buffaloes were a terror to the Texas horses, and many horses stampeded and were lost on account of the presence of a herd of buffaloes in the vicinity. Nobody viewed the exit of the buffalo with greater equanimity than the trailman. It is also a well-known fact that the Indians never ceased their excursions into frontier settlements of Texas until the buffaloes were extinct.

While Captain Lytle was buying Texas Longhorns by tens of thousands each year and selling them the same season in the North, he was also ranching and cattle-raising upon an extensive scale. From 1868 to 1873 his home was in Frio County, but in 1875 he disposed of his ranch and began leasing extensive pastures. He next located a ranch in Frio and Maverick Counties, but disposed of it in 1887. Eight years previously the firm of Conkle & Lytle located at ranch in Collingsworth County, which was sold to the Rocking Chair Company, Limited, of England, in 1882, the firm delivering 24,000 cattle to the purchasers and a large body of grazing land. The firm of J. T. Lytle & Company operated extensively in Maverick County in sheep, grazing as many as 60,000 head of sheep in a year. Schreiner & Lytle were large ranch operators.

In 1885 the order of President Cleveland concerning leases in Indian Territory seriously involved many Texas cattlemen, Captain Lytle among the number. He became interested in the American Cattle Trust, which was originated in 1887 for the purpose of handling ranches and cattle on a stupendous scale. Up to the close of 1896 he delivered to the trust 27,700 head of cattle from various ranches placed under his control, and when the credit of the trust was impaired by bad management and by accepting worthless properties at a high valuation, he was one of the heavy sufferers. He is now interested in a Texas ranch and in the Piedra Blanca Cattle Company, whose property is in Coahuila, Mexico. For years, previous to 1903, he represented the

George R. Barse Commission Company at San Antonio.

The reminiscences and interesting experiences of Captain Lytle would far transcend the limits allotted in the biographical department of a historical work. As an evidence of the confidence reposed in him by his neighbors, the following instance may be given:

In 1885 the fence-cutting troubles of Frio and Medina Counties assumed a serious phase. The fence-cutters were secretly united, and operated as an organized body. Large ranch owners appointed a committee of three, of which Captain Lytle was the leading member, to ferret out the law-breakers and bring them to justice. A number of arrests were made, and the evidence was so overwhelming that thirty-nine men pleaded guilty. These men were all in jail at one time, creating great excitement throughout the region. Through the kindly offices of Captain Lytle an agreement was reached by which the guilty men pledged themselves to do no more fence-cutting, whereupon he secured their return in peace to their families. From that time fence-cutting was at an end in Frio and Medina Counties.

Captain Lytle served as president of the South Texas Cattle Assoociation, president of the Texas Live Stock Association, and for two years previous to his election to his present position, was second vice-president and member of the executive committee of the Texas Cattle Raisers' Association. He is a member of the Independent Order of Elks, and throughout life his course has been characterized by a broad sympathy that is the mark of the genuine cosmopolitan. Educated in the great school of the world, endowed by nature with a largeness of heart not given to the ordinary man, and thrown early in life into company with men of action, Captain Lytle has been fortunate never to be obliged to work in a hampered field. His ideas on all subjects partake of the largeness of his nature, and as years have come, his vision has widened, and he looks upon the future with all the confidence and fortitude that have accompanied his long and useful career. He believes that men must work if they will succeed; that conscience should ever be the final arbiter, and that the happy life is the life which keeps in view the true welfare of others.

The Great Cattle Boom of the Early Eighties.

Rise of the "Cattle King" and the "Cattle Baron."—A Period of "Inflated Prosperity."—Its General Effects in the West.—Land- and Town-Booming.—Influx of Agricultural Settlers.—Apprehensions of the Range Stockmen.—Foreshadowing of the Fate of the Open Range.—Preparations of Stockmen to Make the Most of the Free Grass While It Lasted.—Beginning of the "Cattle Boom."—Appearance of a New Element on the Range.—Extravagant Stories of Range-Stock-Raisers' Profits.—Rapid Rise in Cattle Prices in 1882.—Rush of Inexperienced Men Into the Range-Cattle Business.—Wild Speculating.—Spread of the Boom Contagion.—Ravenous Demand for Stock Cattle.—Syndicates and Incorporated Companies.—Reckless Ranch Management.—A Time of Enthusiasm.—The Boom at Flood-Tide.—Operations of Swindlers.—Unloading by Old Cattlemen.—Consequences of Overstocking the Ranges.—Beginning of the Boom's Decline.—Precipitation of the Crash.—Its Ruinous Disasters.—Fortunes Swept Away Without Warning.—The Country Strewn With Wreckage.—Misfortunes of Many of the Agricultural Settlers.—Stockmen's Aversion to Them.—The Great Convention of Stockmen at St. Louis in the Autumn of 1884.—Organization of a National Association.—Its Unhappy Fate.

The most spectacular and also in its way the most memorable period in the cattle industry in the West was that of the "Great Boom of the Early '80's," as it is known now in the history of the business. It was a time of golden visions in a blaze of glory that led on to riotous feastings on the rim of the crater of ruin—a brief era of wild extravagance in theories and in practices. It was then that the "cattle king" and the "cattle baron" were introduced to an admiring world, and their impressive titles became in the public mind and in common speech synonymous with abounding prosperity and great wealth. While these regal appellations did not originate in the cattle country and never were received with favor there, they reflected in popular notions elsewhere in the land what was understood to be going on on the great stock-ranges in the West, and were generously and indiscriminately bestowed. Any man of good presence hailing from the range country, whether actually a herd-owner, or a "puncher," or a storekeeper in a cowtown, or even the postmaster thereof, who happened to appear east of the longitude of Kansas City, usually was greeted and celebrated by the newspapers and their readers as such a king or baron. Other occupations in the West were known to be producing in that period numerous "captains of prosperity," but with none of these callings were importance and opulence so generally associated as with the cattle business while the boom was booming. Silver-mining was turning out various "kings" and "barons," but even that seductive occupation was not believed to be distributing its favors so widely among its adherents.

It was one of the times of inflated "prosperity" that come upon this dear land of ours periodically and bring in their trains all sorts and conditions of financial speculation, which affect the entire country. In the West it was a period of feverish building of railways into and across regions that but a few years before had been the ranges of the buffalos and the hunting-grounds of the Indians; an era of "boomed" towns, each of which was proclaimed as a "queen of the prairies," or as a "city of destiny," that was rising in the midst of what was bombastically described to be almost an agricultural paradise. Each of the various railroads that had penetrated the plains country, from southern Texas to the Canadian Dominion, made accessible easily and quickly immense areas of "free range." Vast tracts of prairie all along the eastern border of this region, on which the rainfall was fair throughout the year, had been free to the cattlemen a decade earlier, but in the meantime farmer settlers had taken possession of it, compelling its stockmen to move into the semi-arid region farther West; and now it was asserted that most of the latter afforded "splendid" opportunities for farmers.

Embryo "cities" in great plenty had been located and platted along each line of railroad, lots in them were being sold at prices out of all proportion to a rational view of their prospects, and the resources of the country 'round about them were set forth by their promoters and partisans in extravagant and alluring terms. The railroads, through their "bureaus of immigration," labored industriously in the good cause, and so it came to pass that the most unreasonable propositions and wildly absurd representations were accepted as sober truths by thousands of persons, who were not disillusioned until after their expectations had been put to the test of experience. Money was plentiful in the country, and the use of it by many of the incoming people corresponded in recklessness with the extravagance of ideas that predominated.

The boom was initiated in 1880, and during the next four years the entire western country from central Texas to northern Dakota received a very heavy immigration. The railroads carried much the larger part of the people and their belongings to or near to their destinations, and in the throng every character and condition of men susceptible to boom influences were represented. Still there were many who traveled to the new fields of promise and prospective usefulness in the old way, especially of those bound for the Southwest. The roads and trails in that part of the country were enlivened by caravans of covered wagons conveying families of "movers," most of whom were going "to take up land." Among the heads of these families was to be seen the man of moderate means who had "sold out" a small farm somewhere toward the east and was bent upon having a new one in the new country several times as large. He had good wagons and teams, a few head of stock, and money enough to inspire feelings of self-importance. Trailing behind him was the dilapidated outfit of the poor renter with the usual big family and scarcely enough cash in hand to pay for filing on a quarter-section. But all were sanguine and happy, for they believed that the time of the opportunity of their lives had come, and that soon they would be prosperous and independent. They were going where land was plenty and rich, and where a man would have "room to do something." A small number of them, perhaps one in five hundred, previously had prospected the region toward which they were headed, but none of the others had plans more definite than to drive on until he found something that suited him and then to locate on it; for he expected to find much that was good from which to choose. These people, as well as the thousands of others who traveled in other ways, saw that the stockmen had been pushed farther and farther west, and therefore, encouraged by their own desires and hopes and by the glowing stories sent forth by land-and-town-booming interests, easily persuaded themselves to believe that a large part, if not all, of the remaining cowboy land could be, within the resources of industrious individuals, converted into fruitful farms.

Headquarters of a Western Texas Ranch.

At the beginning of this movement for new homes, many experienced cattlemen in the southern and the central range districts became apprehensive of the future of their business; this feeling being more pronounced in Texas than elsewhere, because of the more inviting character of much of the range country in that State. Some of those who were thus disturbed thought that a large number of the invaders soon would have to abandon their undertakings. Yet, these men also foresaw that many of the newcomers would take possession of and hang on to lands lying upon and adjacent to the larger streams, and with their fences cut off access to water at the surest and most convenient places; and otherwise obstruct the movements of cattle, which, at that time, as they had been since the herds were brought into the country, were almost as free as those of the buffalos in the earlier period.

Moreover, many of the stockmen who were looking askance at the advance-guard of this new inroad of agricultural invaders upon the cattle-land, recalled to mind what they knew or had heard of a few Texas cattlemen who had, within the preceding four or five years, bought outright some large tracts of semi-arid land in that State to be used permanently for their herds, thus placing themselves in a position impregnable to all future encroachments of hostile interests. This brought up the probability that stockmen everywhere on the range would, within a few years, be compelled to acquire, so far as they could do so, actual control of land for use in their business. While no individual could obtain more than a small tract of Federal land, he could fortify himself by "taking up" such land to the limit on a watercourse, and then continue to graze his stock on the open "Government land" around him. Discussion of this soon became common among western stock-raisers, but a great majority of them, especially the smaller operators, regarded such a system with extreme disfavor and to talk about it with much uneasiness; yet they did not close their eyes to the probability that before long it might cease to be what most of them called an impracticable theory, and become an established condition in the best parts, if not in the whole, of the range country. Stockmen in the northern districts were not so seriously disturbed by such considerations as these, for the conditions in their comparatively new country were somewhat different, and they did not anticipate that inroads of agricultural settlers would cause them much inconvenience, nor that they would be much disturbed in the use of their free pasture-lands for a good many years to come.

But the apprehensive cattlemen of the central and southern districts, especially those of Texas, believing that they could not depend a great while longer on having an open range with its free grass and easy access to water, reasoned that, as there was more than enough grass and water on their ranges for their then existing herds, the proper thing to do under the circumstances was to stock up to the very limit of possibilities and to make the most of their free grass opportunities while these lasted. There was no rent to pay, and not much in the way of taxes, and so it seemed a very plain proposition that the wise course was to operate under high pressure as long as the favorable conditions continued. Therefore, they struck out and began to buy stock-cattle on a rising market; and many of them kept at it until they reached the limit of their cash resources and also of their credit at high rates of interest. Others were not slow in taking notice of these proceedings and in finding out the purposes that were back of them, and so it was not long until the policy of getting ready to "make all you can while you can" became rather general in the southern half of the range-cattle country.

In 1878 and 1879 the price of ordinary stock-cattle for range-herds had been from $7.00 to $8.00 per head. Values advanced in 1880 and by the close of that year were around $9.50. Throughout 1881 the price steadily rose until it reached as high a figure as $12.00. These great advances were due to several obvious causes: the country generally was prosperous, and market demands for beef were increasing; the packing-house industry had by that time been developed to large dimensions and already had entered foreign markets with its refrigerated half-carcases of dressed beef, its canned beef, and other products; and the movement that had begun among the stockmen of the southern half of the cattle country in 1880 without ostentation to increase the size of their herds had, in 1881, extended into the northern range districts, and was demanding outside stock to add to the range-herds there; drawing for that purpose upon the corn-belt and even upon the States farther east—this movement, however, not yet having become a craze. Furthermore, a great many people theretofore unknown to the cattle business in the West were manifesting a lively interest in it, and, with highly magnified ideas of what they could do, were preparing to engage in it.

Boom stories, as extravagant as those that dealt with the new towns and with the alleged agricultural advantages of the general range country, meanwhile had gone forth over the United States and far into foreign land, telling of enormous profits that were being made in the cattle business on the free ranges of the West and of the immense wasting resources and unutilized opportunities for its expansion on a basis of even greater profits, now that many trunk lines of railroads were pushing their way through vast regions hitherto inaccessible by rail and without the benefits of quick and cheap transportation from range to market.

The Horse Wrangler.

These tales had created much interest in England, and English newspapers were demonstrating, or thought they were, how yearlings could be purchased for $4.00 or $5.00 each, fattened at the expense of another dollar or so, and then sold at from $60.00 to $70.00 per head, net. Some of these publications worked themselves up to saying that so rich were the pastures, especially those of Texas, that an ordinary three-year-old steer ready for the market weighed from 1,200 to 1,500 pounds, and that this meant 1,000 pounds of dressed beef worth from 30 to 35 cents per pound in London, net. It was not strange that such stories as these and others less extravagant should cause the appearance in the range country of many strangers eager to get into the cattle business, to which also nearly all of them were strangers, as far as practical knowledge of its methods in the West was concerned.

The winter of 1881-'82 was a very favorable one throughout the western stock country, and at its close cattle everywhere were in an unusually good condition for that time of the year. The demands of the previous year largely had reduced the supply of range stock, and in the spring of 1882 such cattle were in urgent request. The old cattlemen of Texas, in their anxiety to get upon their ranges all of the stock possible to support on them, cut loose in their competition with each other, and the prices of range cattle suddenly jumped to figures around $21.00 per head. The contagion of this high pressure buying spread from Texas and swept over the great stock region of the West with remarkable rapidity, and within a few weeks almost every stockman in the country was in the market for more cattle at prices that would have made him reel three years before. The buying became as feverish in Arizona, New Mexico, Indian Territory, Colorado, Wyoming, western Kansas, western Nebraska, Dakota, and Montana as it was in Texas.

The market gave the strongest encouragement to the upward movement in prices, for in May of that year Texas "grass-fed" steers sold in Chicago for $6.80 per hundredweight, a price that electrified every cattleman in the country and encouraged hundreds of inexperienced people to endeavor to become range stockmen at once.

Such a price for beef-steers appeared to confirm the wisdom of the policy of stocking-up to the very limit of financial and of range resources, and it also enabled established cattlemen to net large profits upon their current sales of beef-stock. Stimulated by this situation, by an increasing market demand, and by a still greater investment inquiry, prices for range-stock climbed higher and higher week by week, soon reaching $30.00 per head; and before the summer closed as high as $35.00 was planked down for such stock in many sections of the range country. Old cattlemen, who previously had had before them a prospect of only from fair to good returns, at best, upon their investments, and for their labor and risks, suddenly realized that their herds were better than silver mines, for the increase in their value in three years had been about 300 per cent.

It is to be remembered that much of what was considered then as "fair to good range-cattle" now would be almost beneath the notice of our stockmen, and would cut a sorry figure beside the well-bred animals that constitute nearly all of the herds on the fenced ranges of the present time. Therefore, the prices they commanded economically were even higher than they appear on their face, if the final results on the block were to be measured by present standards.

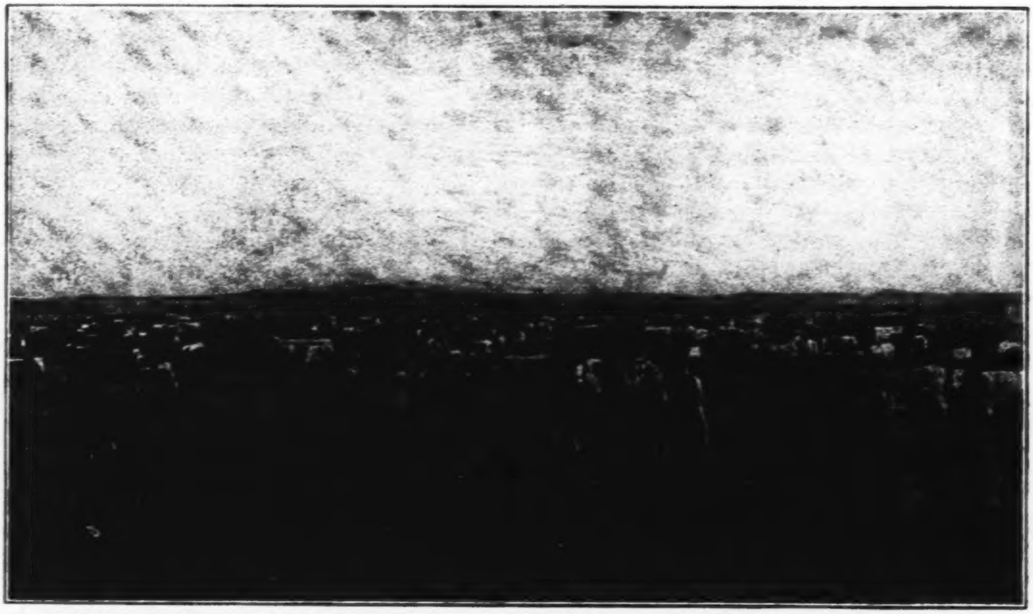
By midsummmer of 1882 the great cattle boom was on in full vigor, and the enthusiasm that it h[illegible] aroused seemed to have become general throughout the United States and to have extended also into many foreign countries. Men were flocking in from almost everywhere to get footholds, "range-rights," and herds of cattle to make them rich in a hurry by eating free grass. They came from about every State in the Union, from Mexico, Canada, South America, England, Scotland, and continental Europe, and some even from far-off Australia. Old men, middle-aged men, and young men, representing every walk of life, were eager to abandon enterprises, professions, and occupations with which they were familiar to go into the "cow business," of which most of them knew little or nothing. English "cattle syndicates" and American "cattle companies" were being organized by the hundred to reap the harvest of dollars by what were supposed to be superlative ways and means, and hosts of individuals possessed of abundant capital were preparing to compete with them for places at this feast of good things.

In the excitement, many experienced old-time cattlemen, any one of whom who would have felt aggrieved had it been suggested to him that his eye-teeth possibly were not quite so long, figuratively speaking, as the horns of his biggest and roughest steer, forgetting that their earlier plans contemplated nothing more than to take the utmost advantage of then existing conditions as long as they lasted, speculated with a recklessness that knew no bounds. The clamorous demand for money with which to carry on these fortune-producing operations caused the backbones of those who had it to lend to become stiffer and stiffer until from 1½ to 2 per cent a month was unblushingly asked and unhesitatingly agreed to, not only upon live stock, but on personal security, also. The whole West appeared to have entered into a wild financial debauch—a revel of trouble-and-sorrow-breeding indiscretion. However, every prospect was pleasing at that time to an overwhelming majority of the participants, who were full of confidence in themselves and in their fellow-men, and gave little or no thought to the possibility of adversities coming upon them unawares.

The winter of 1882–'83 was a rough one and entailed severe losses in many parts of the range, but this did not impair the beatific state of affairs in the cattle business, the prices of range-stock remaining about as stiff in the spring of 1883 as they had been in the preceding year. The May market price, the highest of the year, for such grades as "grass-fed" Texas steers, was somewhat lower than in the same month in 1882, not having gone above $6.00 per hundredweight. Nevertheless the demand for range-stock was persistent, and there seemed to be everywhere more buyers than sellers. The rustlers also had become infected by the contagion and were applying themselves with enthusiastic energy to increasing the returns from their branch of the cattle business, chiefly at the expense of the "tenderfoot" element that had plunged headlong into the whirl.

Large shipments of farm cattle were railroaded into the West, the central States, especially those of the "corn belt," virtually being "skimmed" of cows and heifers by speculators and by ranchmen, who sent them to the ranges to be used for breeding purposes. A great many young bulls that, under ordinary conditions, would have gone to market later as beef-steers, also were gathered up and shipped to the West. A significant circumstance of these times was the heavy falling off in the exports of live cattle in 1882 and 1883, the decrease, compared with the figures for the next preceding two years, being about 80 per cent in number and 50 per cent in value.

While the prices of range-cattle were climbing skyward in these good old times, so were those of sheep. Wool had been steadily advancing in price since 1879, and now had reached figures that commanded general attention. Therefore, in many parts of the West when men who were ambitious to become pastoral chieftains found themselves unable to purchase a herd of cattle with its accompanying but uncertain "range-rights," they took to sheep; and soon the sheep-men had become about as wild in their visions of wealth to be acquired speedily as were the cattlemen. Those among the present veterans of the range who bought stock-cattle and sheep in 1882-83 have good reasons for remembering that from $30.00 to $35.00 for a rough cow and from $5.00 to $6.50 for a sheep were not regarded then as being unduly extravagant prices except by a few birds of evil omen.



The Noon Rest.

In ability to figure out on paper the most opulent results of future operations, the average stockman of that period was a match for the mining prospector who, having come upon a little "color," invariably jumps to the conclusion that he has "struck it rich," and therefore needs nothing but cash to develop his claim into a mine that will make every owner in it a financial Colossus. So it was that when any one in the flush times of the cattle-boom expressed doubt as to the permanency of the prevailing prices, out would come the pencil and the well-thumbed memorandum-book, and within a few minutes the doubter would be given a complete demonstration in figures that range-cattle generally were certain soon to go to $40.00 at the least, with even chances for reaching $45.00, and with a strong probability of selling for $50.00 in the not very distant by-and-by; and $6.00 sheep were going to keep up with the procession and become $10.00-sheep pretty soon.

Syndicates, incorporated companies, and many non-resident individuals of abundant means, bought large ranches that were stocked and well equipped, and as a rule paid the asking price without quibbling. Indeed, it frequently happened that the buyers were the more eager to close the trade, for there was competition between them, and each was anxious to make sure of a good thing before the others had a chance at it. Many of the English brethren "went in for cattle" on this basis, and among all hands such investments mounted into the millions. These enterprises were committed to the care and supervision of "managers," but, as nearly every experienced and successful cattleman in the West was operating for himself, the management of many of these large interests had to be entrusted to men of small, if any, practical knowledge of the trade, and often of little aptitude or ability for business affairs generally. The ranch houses were overhauled or new ones built, fitted with all of the conventional and some unconventional "modern conveniences," and luxuriantly furnished, at heavy expense. In frequent instances the management of these ranches of non-resident ownership was very inefficient and extravagant—burning the candle at each end.

Special representatives of the new syndicates and the companies, and the non-resident individual owners of large ranches would visit the properties once in a while to see how things were going on, although scarcely a man of these effectively could distinguish between efficient and inefficient ranch management, or make any practical suggestions. Upon such occasions the progress of these dignitaries from the railroad station over the plains to the more or less distant ranches often would present the aspects of a burst of splendor, or of a stately pageant, rather than those of a serious business mission for purposes of inspection and regulation.

Among the men from the East who swarmed into the cattle country in these times, either as operators on their own account or as managers for others, and especially among those who had crossed the Atlantic, there were some who had singularly irrational ideas of what ranch-life should be made. These were appareled in purple and fine linen, and insisted upon faring sumptuously every day and upon having a good time week in and week out. They introduced blooded horses and packs of hounds, and in troops went careering over the plains after antelopes, coyotes, and such other creatures as they could find to chase; supremely indifferent to the welfare of their business and leaving it to take care of itself. They were also fond of having elaborate "social functions" in their richly-furnished ranch-houses, and upon these occasions nobody thought of going home till morning. The rough and hard work which every practical cattleman must do, whether he be owner or cowboy, if the enterprise be made successful, was not to their liking, and therefore when they did not shirk it entirely, they gave it the minimum of their time and attention. Some individuals among these holiday stockmen, by their general conduct and personal manners, made themselves offensive to their more sober-minded neighbors and to many people they encountered in the cowtowns, and thereby occasionally provoked a disturbance of the peace.

But in the main the new-comers were earnest men who were bent on doing the best they could, and were not afraid of work and hardship. Notwithstanding their inexperience and the effects of the more or less visionary notions with which all of them had been imbued, they tried to adapt themselves readily to the requirements and conditions of their new life and business, and to the manners and customs of the range country. Pleasant relations and good feelings soon were established between them and the old-timers who respected themselves and were worthy of respect, whether these were herd-owners or cowboys. Socially the only barriers that were recognized by old or new were those arising from criminal or dishonorable acts or from general worthlessness. Otherwise it was—

"Hail fellow, well met, all dirty and wet;
Find out, if you can, who's master, who's man."

The "millionaire" cattleman, the titled Englishman, who managed or perhaps mismanaged some English outfit, the cowpuncher, and the tenderfoot ranchman, often became boon companions in social dispensations and dissipations. They danced with the same girls at the same "grand ball," ate at the same table, drank together at the same bar, won each other's money in the same little game, and in the grief that eventually came upon their business they were sharers in one another's misfortunes.

One of President Roosevelt's agreeable experiences early in his career as a western Dakota cattleman, a little later in these times, was in "opening" a cowboy ball. His partner was the wife of a small ranchman, who had had occasion a short time before to shoot and kill a noted Scotch bully. In his book, "Ranch Life and the Hunting Trail," Mr. Roosevelt says his partner's husband danced opposite him, and that "it was the lanciers, and he knew all the steps far better than I did. He could have danced a minuet very well with a little practice. The scene reminded one of the ball where Bret Harte's heroine 'danced down the middle with the man who shot Sandy Magee.'"

A Southern Ranch Home.

As the boom-tide was rising toward its flood, conditions were peculiarly favorable to the operations of shrewd professional speculators and of long-headed swindlers; and many of the like of these did not permit such opportunities for the application of their talents and the exercise of their ingenuity to pass unheeded. They acquired control of small tracts of nearly worthless land at comparatively a trifling expense, and pretended to have control of much more in their vicinity. These were unloaded upon misguided enthusiasts, who were determined to get into a business in which those already in were fast piling up fortunes. "There," said the sellers of these wastes, "you will have no mere 'range-right' that you may lose over night, but will control outright the rich pasture-lands on which your herds of sleek cattle will graze!" Many thousands of dollars were "invested" in such ventures by inexperienced men, and the cattle that they put on these "rich pasture-lands" became anything and everything but sleek.

Englishmen and other foreigners frequently were even more flagrantly swindled, for they bought "ranch-land" to which the sellers had not title even to a quarter-section anywhere in the region, and of which the description in the conveyance did not fit into any place known to the surveys. The foreigners knew but little about the country, or about how things might be done. They had heard the stories of the fabulous profits that were being made on the "Yankee cattle ranges," and were so eager to "get in" that they were ready to jump at anything that was made to appear as good a chance to enter upon the "ground floor." Other "operators" along these lines who "calculated" to "realize" upon their schemes across the water got nominal control of strips of water-front under the Homestead Act, or the Desert Lands Act, or the Mineral Lands Act, it did n't matter much which. Then they had beautiful maps made that included all the public land within sight of their claims, and that showed timber-lined rivers and creeks a-plenty. Armed with these and a lot of ostentatious preliminary "papers," they went abroad—and usually "did very well" with them. One of these enterprising promoters took a fortune from a Holland syndicate at a single sweep. He had picked up and fixed up some shadowy claims well up on the Pecos River in New Mexico, but his map included a fine stretch of country, most of which he had not even seen, to say nothing of his lack of title to it. Beside extravagant landscape embellishments, his map showed five steamboats plowing the waters of the upper Pecos where an ordinary row-boat would have had trouble in navigating. No doubt the Hollanders were reminded that from the first appearance of the Spaniards in New Mexico the Pecos had been known near and far as the "River of Oxen." As soon as they could get around to it the Hollanders sent over an agent to take possession of their purchase and to get ready for business. While the wide variations of the map as to scenery and titles astounded him much, the condition of the upper Pecos for a steamboat-river amazed him more.

In the autumn of 1883 there became apparent an increasing disposition among those of the old stockmen who had not lost their heads in the popular excitement, to dispose of their holdings and so reduce the consequences of Fortune's smiles upon them to the concrete form of cash. It was from this conservative minority element that previous incoming investors who wanted to start into the cattle business with large herds and with ranch outfits in full working order, had obtained the objects of their desires on the stiffest wholesale terms ever herd of in the cattle country. But now there was manifested a somewhat supple willingness to broaden and to add to the number of these opportunities for the accommodation of the later comers. In other words, these conservatives realized that the time had come to feed the hungry with a more generous hand, and therefore entire herds, "range-rights," and so forth were more freely disposed of, but at prices that still were extravagantly high—around $30.00 per head, calves counted with the rest, range delivery.

Most of these deals were made upon the basis of the "tally-book count"; that is, that the number of cattle presumed to be present on the range, according to the ranch records, actually were there, and "range delivery" meant that the buyer should take the cattle as he found them on the seller's range bearing the latter's brand. Often the buyer discovered a wide discrepancy between the tally-book count and the number of animals that could be rounded up on the range. But that was his "look-out."

In these and in preceding similar transactions, cattle by thousands and by tens of thousands changed owners, and this shifting added to what had been done in other ways and in small deals had, by the close of 1883, to a very noticeable extent, passed the range-cattle business into the hands of new and mostly inexperienced men.

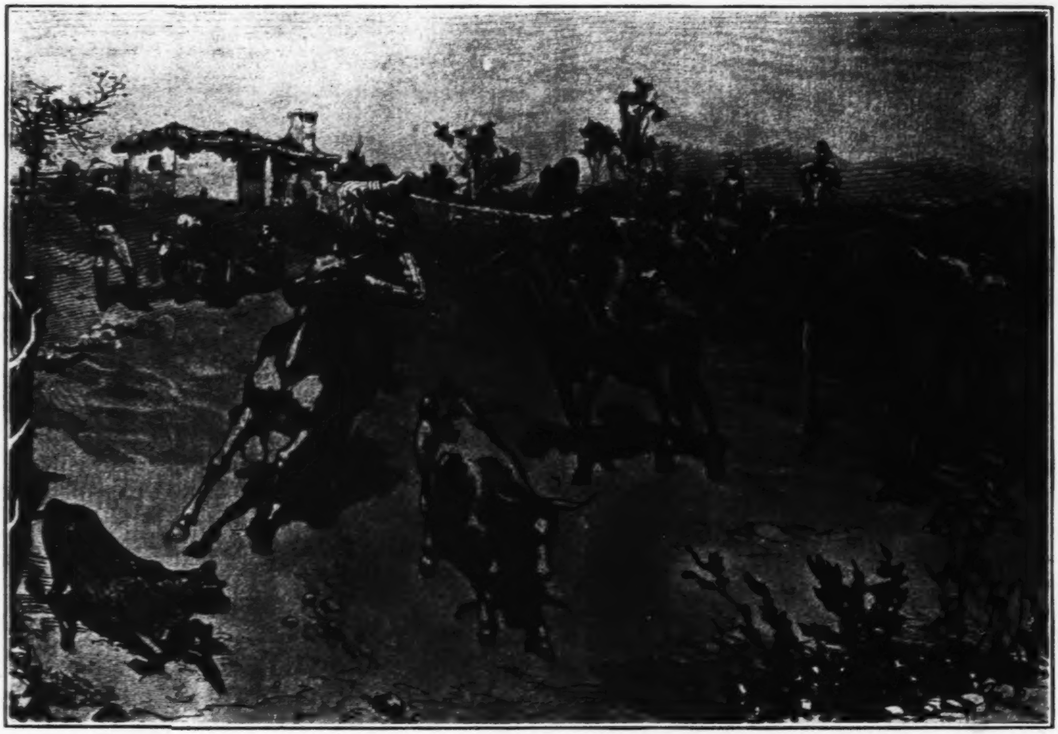
In buying entire herds and ranch outfits, these people, as a rule, attached great importance and value to the so-called "range-rights" that they believed they had acquired in the trades, and in nearly every instance the sellers, while admitting that they did not own or control by lease a foot of the land they had been using, had the same notions about the "rights," and gravely insisted that they constituted real assets.

But before this time a movement in buying or leasing range-land and fencing it, had made significant headway in the central parts of Texas and also had appeared in a few places here and there in the central range districts and elsewhere; but upon the whole this beginning of a new general system had not yet extensively affected the old practices anywhere; and, broadly speaking, the range country still remained "open," excepting, further, where farmer settlers had succeeded in getting footholds. Therefore, cattlemen generally were without the shadow of title or of other legal right to the lands on which their herds were grazing. Their claims rested upon priority of occupation and on the fact of continued possession, but they could be maintained only by intimidating those who might covet the land and attempt to appropriate all or part of it by invasion, or until a legal owner put in his appearance and asserted and established his dominion over it.

The disastrous practice of over-stocking the ranges had become common at this time, but it was carried to greater extremes in the southern than in the central and the northern districts. As already mentioned, when the old cattlemen became apprehensive that the years of the open range and of free grass might not be numbered in very large figures, most of them decided to approach the danger-line in increasing the size of their herds on a given area of pasture. The earlier new-comers, seeing these experienced men driving ahead on this policy, took it for granted that that was the way to do it, and therefore faithfully imitated the examples of the old-timers; while the later of the new men, finding the practice established in popular favor, fell into line and did as the others were doing. Nearly everybody had put on his range far more stock than it properly could support, and thereby seriously had diminished the land's natural resources for supporting any.

Some of the evil consequences of this bad practice were to be seen in 1882 to an extent that should have served as an effective warning, and a considerable part of the losses in the rough winter that followed plainly was due to the impoverished condition of many of the cattle on the overcrowded ranges. In 1883 the overcrowding had become even worse in many sections of the country, and cattle were dying in consequence of it before the snow began to fly. The worst of the offenders in these respects were to be found in Texas, where it was not uncommon for thousands of cattle and sheep to be pushed upon stretches of free grass that really were not enough for half the number. Therefore, their ranges were eaten down close and tramped out, and their productiveness permanently impaired; in many instances almost to the verge of ruin.

The experience of a Texas cattleman whose range was in the Brazos River region, about 150 miles to the westward of Fort Worth, affords a typical example of some of the consequences of such over-stocking in that State. His "range-rights" embraced about 100,000 acres, on which he held in the summer of 1882 25,000 head of cattle, which were nearly three times as many as should have been on the land, for some of the latter was rough and cut up by gulches. The ensuing rough winter found much of his stock in a run-down condition from actual scarcity of provender, and unfit to weather a stormy season in which the pickings would be still leaner. In the following spring his men rounded up about 10,000 cattle, the skeletons on his range telling what had become of the rest. He had made no provision whatever for winter feed, never thought it necessary to provide any kind of shelter for his stock, and so suffered the inevitable consequences of his reckless eagerness to get rich fast. This man was but a type of his class, there having been thousands in the range country about that time who paid heavy penalties for similar offenses against good business judgment; but, as remarked above, they were far more numerous, proportionately, in the southern than in the central and northern districts.



Branding of the Calves.

Still, so great was the momentum of the boom and so strong the general confidence in the future, that such backsets to the more reckless operators did not disturb business conditions, and soon were forgotten by nearly everybody excepting those upon whom the losses had fallen. In 1884 the market opened stronger than in 1883, and in May the Chicago quotation reached $6.10 per hundred, as against $6.00 the previous year, and in June advanced to $6.25; but the prices of range-stock showed a tendency to weaken. Through the autumn of 1884 the market steadily declined with each month, and before the close of the year there was something in the air that made many of the stockmen of the range uneasy and apprehensive.

The crash was not long delayed in its coming. In 1885 prices sank lower and lower, and so brought on a stampede to get from under. By midsummer the market for about everything connected wiith the range-stock business had broken down, and in the autumn it went to pieces. Like other highly inflated booms, this one claimed as toll more than it had received for grinding, and therefore the stockman of the range who was not either badly crippled or cleaned out entirely, financially, was the exception. The storm-center hung over the southern districts, and its blasts littered the country there with wreckage. The depreciation of values was appalling, and it came so swiftly that ruin was upon thousands of cattlemen before they realized what had happened. Many a stockman who, notwithstanding his indebtedness that was running at perhaps 2 per cent. a month, had considered himself wealthy in his herds that were feeding on the "free grass" of the range he held under his transitory "rights," did not comprehend at first how the calamity could take from him even the half of his fortune. But when he realized that "range-rights" and "free grass" were no longer to be counted as assets, and saw the values of range-stock that he had "figured" at from $30.00 to $35.00 per head, shrink to $8.00 and $10.00 at forced sales, and even to $5.00, as they did eventually in not uncommon instances when creditors were relentless, he understood how it could be that a man who had believed himself rich suddenly could be stripped of all of his possessions.

After the crash another rather general transfer of cattle and ranch ownership set in. The first had been an enthusiastic acquisition by purchase under what was thought to be most favorable conditions; in the second, in some cases it was due to the determination of men who still were solvent to close out and get out, but in the great majority of instances it was a heroic sacrifice to pay clamoring creditors, with a reserved hope of rescuing something from the wreckage, or else an unconditional surrender of property. While many of the old cattlemen had taken need in time, and had either sold their holdings before the collapse, or prepared themselves to meet and overcome its disastrous consequences, many more of the same class were hit as hard as was the most sanguine tenderfoot in the business. Indeed about the only men who did not smashingly collide with bankruptcy or run dangerously close to it, who had not heavily discounted the future, were those of large reserved means who owned but little, and the small stockman who owed nothing.

For an example that will serve to make clearer how a large number of these more or less fictitious fortunes, which men thought were real, substantial, and enduring, disappeared like a bubble on a river's bosom, we will take the case of another Texas cattleman. In 1883 he refused $1,500,000 for his herd, estimated at 45,000 head, horses, ranch outfit, and range-rights. In liquidating his affairs after the collapse of the boom, his property, from which he had marketed nothing but the usual output of beef cattle, sold in 1886 for $245,000. Under the boom conditions of 1883 the net natural increase of his herd during the intervening three years should have been worth more than the sum for which all was sold; but after the collapse values rapidly went from bad to worse, and this man, who had figured as one of the "millionaire cattle kings," discovered in the end that his liabilities exceeded his sadly depreciated assets by nearly $50,000.

After the crash many of the best cattlemen in the range country, finding themselves thoroughly "broke," were glad to take places as managers for others; and many a skilful "cow-puncher," who had thought he was "fixed for life," at satisfactory wages and with convenient opportunities for having a good time around pay-day, found himself drifting, he knew not whither. The holiday ranchman, with his extravagances and his absurdities, as well as many others of the recently-fledged stockmen, passed out never to come back again; and the syndicates and companies that had suffered from expensive and bad management, but contrived to survive the collapse, had no trouble in getting efficient and economical men to manage their affairs. Those of our English friends who in practice had conducted their ranches more as playthings than as serious business enterprises, soon had their financial supplies from over sea cut off, and thereupon packed up and went "'ome," their losses apparently being the least of their troubles; but others, who were dependent upon themselves only and were not dismayed by the disasters, stayed to fight anew the battle of life, and some of them did it bravely and effectively and are among our present-time successful cattlemen.

Many of the farmer settlers who invaded the range country during the years of the boom met with misfortunes proportionately as great as those which befell the stockmen. Some of them found places that were from fair to very good, and succeeded in establishing themselves permanently; but others, more than a majority, were doomed to disappointment and impoverishing failure. The latter, locating in parts of the country that looked fair and seemed promising for agriculture in the spring and the early summer, saw their crops and their prospects wither and famish for lack of water through the other months of the year. In a great number of instances these people then often had to haul water from considerable distances for the few head of stock they owned, and even for household use, for windmills pumping from bored wells had not in that period come into general use in the semi-arid region; but if their utility had been demonstrated everywhere, most of these people were too poor to buy them and set them up on their claims. However, windmills, even where water readily is accessible by boring, are not economically practicable as irrigation machines for agricultural operations of very large extent. At that time it was not generally known that water effectively could be reached in most parts of the dry country by boring. Many people then believed that if there were any water down below it must be very far down; an understanding that was shared by a "boom" settler in southwestern Kansas, who, in dry times, had to haul water seven miles. "Why don't you bore a well on your place, and have a windmill?" he was asked one day, as he was going home with a load. "Stranger," he replied, with impressive solemnity, "you don't 'pear to know that 'n these parts it's 'bout as fur to water that way as any other."

But there was water not very far beneath the surface, and when windmills were put in operation they brought it up, as they have done and continue to do in most other parts of the semi-arid country.

In no section of the great grazing region was there at any time during the period that we have under consideration here, such an overflow of affection between the agricultural settlers and the cattle people as to cause a general rise in temperature over the land. There were frequent entanglements and broils, for all of the stockmen, cowboys as well as owners, had, or at least pretended to have, very sharply defined convictions as to who possessed the better rights in the country. But these were only surface troubles that soon would have adjusted themselves. It was the deeper and greater ones due to successive dry seasons that compelled thousands of "nesters" and "grangers" about the time the cattle boom collapsed to abandon their claims, together with such improvements as they had made on them, and turn their faces away from the scenes of their discomfiture, leaving their property to be sold for taxes to whomsoever would buy, or to revert to the Government.

While in some parts of the West extensive irrigation systems already had been constructed by incorporated interests, these people had had to provide irrigation arrangements for their attempts at agriculture chiefly by individual effort; and it might go without saying that in consequence of inexperience in such matters and imperfect knowledge of the country, much of the labor went for nothing. Thousands of the claims upon which such work was done, now are parts of fenced cattle ranges, or are being utilized by the small farmer, who is making successful application of practical methods of dry farming.

We have said on a preceding page of this outline-account of the circumstances associated with the great cattle boom of the early '80's, that in the autumn of the year 1884 "there was something in the air that made many of the stockmen of the range uneasy and apprehensive." Yet this did not prevent the gathering at St. Louis in November of that year of the largest assemblage or convention of stockmen and of those identified with allied interests that ever was held in this or any other country. It still stands in the history of the live-stock industry in our country as "the great convention." Twenty-seven States and Territories were represented by appointed delegates, and beside these there were many special delegates representing live-stock associations and other interests; the total number of delegates aggregating about 1,400. In addition to this large body of representatives there were present many men of national fame and hundreds, even thousands, of stockmen from all over the country. "The National Cattle and Horse Growers' Association of the United States" was formed. R. D. Hunter was elected its President; D. C. Moore, Treasurer; and A. T. Atwater, Secretary; while each of the States and Territories represented in the convention, as well as Canada, Mexico, and Alaska, had a Vice-President. The convention considered and acted upon many questions of vital importance to the live-stock industry, and in every way was a most notable gathering. But the fate of the Association that was formed by it was but little different from that which befell "The Live Stock Men's National Association" that had been organized at Kansas City eleven years before and that lived for a week. The St. Louis Association did not survive the heart-breaking years of disaster that began with 1885.

Simpson Farrow Lockridge.

Perhaps the oldest herd of Short-horn cattle in Indiana is at Greencastle, founded in 1872, and still owned by S. F. Lockridge, president of the American Shorn-horn Breeders' Association. For years this herd, when being built up and first made known, sent out annually a show-herd to meet the best of the land, and usually received the greatest share of the prizes. Many bulls that won their way to championship honors found a congenial home in this herd, and females of equal note have kept them company. After the desired end had been reached in carrying off prizes, the show-herd was retired, and the aim has since been to breed animals good enough for the show-ring, but to let others fit and exhibit them.

Like many other breeders, Mr. Lockbridge has had one stock-bull, which stood out prominently as a sire. His get possessed great uniformity of type, and that type the true one; so that to-day a visit to the farm reveals among the males the chief characteristics of the typical Scotch conformation—big in the body, short in the legs, and deep in the flesh. The cows are of the broad-hipped sort, with expansive udders; and the calves give evidence of being of the thrifty Scotch kind.

The life history of the man who dared to do things previously unheard of in Short-horn breeding circles, but which meant the creating of beef- and milk-producing animals that improved the cattle industry of this country, and made a standard that later became the envy of the world, can not fail to be of interest to the friends of live stock.

S. F. Lockridge was born on his father's farm near the town of Greencastle, Putnam County, Indiana, January 23, 1846, the second in a family of four boys, the others being named Robert A. (who died in infancy); Alexander H., and Albert O., who are still living. His natal environment shaped his entire life. With his earliest breath he drew in that love of soil, of green fields, well-tilled acres, and of fine stock which has permeated his life and made of him an ideal and progressive stock-grower.

His father, Andrew M. Lockridge, was of Scotch and his mother of Irish descent. Both were born and reared in Montgomery County, Kentucky, and were, considering the opportunities of the times, more than ordinarily intelligent. Andrew M. Lockridge was a successful farmer. These characteristics were born of hard experience in his early life, for when he was but twelve years of age the responsibility of being the mainstay of a widowed mother, seven sisters, and a baby brother was placed upon his shoulders. In 1835 the family moved from Kentucky upon land in Putnam County, Indiana, purchased by Grandfather Lockridge previous to his death. The hardships were met heroically. Here Andrew M. Lockridge learned frugality, thrift, and the value of money. Through his energy he placed the family in comfortable circumstances, and was able to take unto himself a life companion. She was Elizabeth S. Farrow, daughter of Colonel A. S. Farrow, a pioneer of Indiana (arriving from Kentucky in 1830), and a member of the convention that framed the Constitution of the State.

The boyhood days of S. F. Lockridge were passed in the usual round of tasks on a farm, and as soon as he was old enough he entered upon a regular course of schooling, for his father held liberal views in regard to the education of his children, also requiring them to work on the farm after school hours.

While still at school, when he was but sixteen years of age, the courageous spirit inherited from his ancestors prompted him to offer his services to his country as a volunteer in the Civil War. The male side of his ancestry, as far back as he can trace, were men who never shirked their duty in this respect. The names of the Lockridges and Farrows appear on regimental rolls of the War of the Revolution, the War of 1812 and the Indian wars of the frontier, and he preserved the sequence in the late Civil

S. F. Lockridge

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War. Because of his youth he was permitted to enlist only for short-period service; but three times he enlisted—during the years 1862, 1863, and 1864. He was a member of the 78th and 133d Indiana Volunteer Infantry regiments. His service mainly consisted in guarding the routes of the transportation lines of the Union Army. While never participating in any of the noted battles, he performed the duties assigned him with the fidelity of the true soldier. When he obtained his last honorable discharge he wore a sergeant's stripes. His service made him eligible to membership in the Grand Army of the Republic, and he was honored by being appointed aide on the staff of General Torrence, of Minnesota, when the latter was commander-in-chief of the organization.

At the expiration of his last enlistment Mr. Lockridge resumed his studies at Greencastle and continued them uninterruptedly until his graduation from Asbury (now De Pauw) University, at that place, in 1868. He was a diligent student, gave close application to the work before him, and so absorbed was he in it that at the end of the term his health was impaired. In order to recuperate he visited the Pacific Coast, remaining about a year. On his return he began the study of law.

As the time sped on while poring over the tomes of Blackstone, a longing for a renewal of out-door life grew upon Mr. Lockridge. He had always been a lover of cattle. A study of the cattle handled in those days gave birth to the thought that they were capable of great improvement. His judgment led him to the conclusion that animals of better quality were possible than those to which his father and brother were feeding large quantities of corn and grass, and would produce more money with less outlay for feed. He came to the conclusion that to develop a plan for improving the cattle of the country would result in his accomplishing more good to his State and the world than could result from the practice of law. He decided upon a high ideal in life—to become a producer.

To him, thought was the father of action. His first step was to purchase half a dozen Kentucky bred registered Short-horn females. They were his own selection; of strong individuality and good breeding. Some were in calf. He began the work in 1872. He next bought a Rose of Sharon bull in the neighborhood of his Indiana home. Some of the Kentucky cows he sent to J. H. Pickrell, of Harriston, Illinois, who was the owner of the undefeated champion Short-horn bull, Breastplate, a Booth, which had cost in Canada $6,000. It was the younger breeder, Mr. Lockridge, who took the honors away from him, which was accomplished with Lord Strathallan. Among the offspring from the mating of Breastplate with Mr. Lockridge's cows was Battle Axe 22092, which became one of his herd and show-bulls and the sire of many excellent animals.

In 1874 Mr. Lockridge visited Canada in quest of a bull as leader of his herd. After a careful search for his ideal, he selected and bought Lord Strathallan, bred in Scotland, paying $2,500 for him. The animal had been entered in a contest for a $70.00 cup, but Mr. Lockridge did not wait for the verdict of the judges, to decide on his purchase. His judgment of what constituted a good bull was endorsed by the decision, for Lord Strathallan was awarded the cup over a big string of entries, and he was shipped to his new home in the Hoosier State. This was one of the first Scotch bulls brought into Indiana. For three years he was shown at fairs in Indiana and adjoining States, and always carried off first honors, including sweepstakes. He became such a formidable rival that for the protection of other breeders, fair managers were compelled to adopt a rule that bulls which had once won sweepstakes were barred from further contests. When Lord Strathallan was retired from the show-ring he had a total of thirty-two first prizes to his credit, including challenge cups. The produce from his breeding were in the main heifers, and among them was a large number of prize-winners. Notwithstanding this remarkable record, Mr. Lockridge's ideal had not yet been secured from his own breeding. He was determined to improve American beef cattle, whether he made any money or not, eliminating selfish considerations entirely in the undertaking. In the methods then in vogue, individuality was not considered; attention was given mainly to "fashion." His conclusion was that common sense must be applied in order to produce a beefy animal. He studied the subject thoroughly and conscientiously. He trimmed out his female herd, and was always on the lookout for the blocky, strong bull—the bull which could produce the the bullock of the beefy quality; that would mature at any age on the smallest amount of feed. He also had in mind the development of the cattle industry in the great range districts of the West, and the demand that was opening up for bulls that would produce the beef-making steers off the nutritious grasses. He patriotically spent time and money in his endeavor to bring about these results through the use of bulls bred in America.

It was not until 1889 that his new project was fairly launched. This came about by his selection, as a herd-bull, of Baron Lavender III. 78854, bred by Senator W. A. Harris, who was then conducting a breeding-farm at Linwood, Kansas. The sire and dam of this bull were bred by Amos Cruikshank, of Aberdeenshire, Scotland, whose memory is revered by thousands of Americans who adopted his type of breeding long before his own countrymen did so. Among the many noted offspring sired by Baron Lavender for Mr. Lockridge were those superb animals, Lavender Viscount 124755, and Royal Avalanche 165010, two of the most noted show-bulls and breeders of the century. Ever since the introduction of the Baron into his herd and the selection of Scotch cows fifteen years ago, Mr. Lockridge has been classed among the most successful breeders of Short-horn cattle in the United States.

Mr. Lockridge was one of the earnest men who attended the first meeting of Indiana Short-horn breeders, held at Indianapolis in May, 1872. It seemed that the young man had chosen a propitious time to align himself with the development of this particular breed of cattle. He was just entering on his life-work that was to bring him fame, and he came into the organization at a time when breeders deemed it beneficial for mutual interests that they should meet and discuss matters of importance bearing on their business. At this gathering it was decided to issue a call for the Short-horn breeders of America to meet at Indianapolis the following November to form a greater association. The Indianapolis meeting resulted in the organization of the American Association of Breeders of Short-horn Cattle. This body early took up the consideration of a perfect, truthful pedigree list by consolidating the three Short-horn herd books then existing and owned by as many private individuals. Negotiations with the owners were slow. Each believed that he had a valuable piece of property, and accordingly set a high price on it.

At the annual meeting of the Association held in 1882, it was decided to bring the question to an issue by forming a corporation under the laws of Illinois, under the title of the American Short-horn Breeders' Association, with a paid-in capital of $20,000. This fund was to be used in purchasing the individual books, if they could be secured at a reasonable price. Failing in this, the Association determined to publish a book of its own. The private books were bought, but the transaction put the Association in debt $20,000. This indebtedness was willingly assumed and soon wiped out by the earnest and energetic men composing the Association, for the single herd-book meant the protection of the purity of the breed, and every member since that time has been able honestly to exploit the breeding and the merits of his particular herd, as well as of the entire Short-horn breed in America.

Mr. Lockridge was an ardent worker in perfecting the plans for a single herd-book, and his associates were quick to note his ability. In 1874 he was elected Secretary of the Association, and for eight years following he was an indefatigible worker in furthering a consummation of the desired results. When the incorporated body came into existence he was elected to a place on the board of directors, where he has since served continuously. In 1902 he was elected to the presidency of the Association, thus making thirty-two years of uninterrupted service in the interest of the breeding of Short-horn cattle, and in all these years he has missed but one meeting of the larger association.

Many years of close study of his chosen calling have made him an authority upon matters pertaining to the breeding of Short-horn battle, and he is so recognized wherever these ceautiful animals are known. While admitting that great improvements have been accomplished in Short-horn cattle during his connection with the breed, Mr. Lockridge does not claim that perfection has been reached. In reply to the question, "On what lines will the best Short-horns of the future be bred?" he replies:

"What line of procedure the future breeder of Short-horns may adopt is, of course, very much a matter of speculation, but it is fair to presume that while he will readily accept new and improved ideas, he will not be indifferent to the results of the observations and experiences of the best breeders of the past. It is questionable, indeed, if better Short-horns ever existed than were bred during the first half of the last century. Starting, as those early breeders did, without records or any knowledge of the breeding of their cattle, except that derived from private registers and traditional sources, line-breeding was, of course, an unknown term for many years, although they did engage in the practice of inter-breeding, in some instances, from very close affinities. To-day the question of in-and-in breeding is a debatable one, and in all probability will continue to be for many years to come. It is admitted, I believe, that in-and-in breeding has a tendency to reduce the size, to refine the form generally, and to increase the disposition toward early maturity. How long this practice can be followed without impairing the useful qualities in the animal is a question not easily answered. The character of the cattle of the early periods justified this practice to an extent that would not permissible at this late day, when Short-horns have reached the highest degree of refinement, it seems, compatible with a good constitution and general usefulness. In fact, I think most breeders will agree with the opinion that in some cases the limit has been exceeded, and that there are Short-horns to-day that show the effects of too close breeding, in an excessive fineness of bone, lack of scale, and indication of delicacy throughout the whole animal. It is evident that animals of this character cannot be depended upon to produce a healthy and robust progeny. If this be true, is it not time to call a halt and advise a return to safer methods and a more intelligent and liberal selection of the material for use in the herds? The question we Short-horn breeders should ask ourselves is, Are we exercising a proper degree of independence in our operations, or are we allowing the preference for this or that line or family to influence us against our better judgment and common sense? It is unfortunate, I think, that too many breeders continue to worship at the shrine of their early love, long after the source of inspiration has lost its power.

"The successful breeder of the future will, in my humble judgment, be a firm believer in the value of pedigree, but he will insist that it be accompanied by unquestionable proof that the characteristics of the ancestors were such as to insure the perpetuation of good qualities in the offspring. He will not refuse to introduce into the herd sires bred from close affinities, provided they possess in an unqualified degree the qualities already referred to; but he will resolutely reject all that do not measure up to that standard. I believe that the breeder of the future will not be hampered by the fact that the material he selects is not line-bred, but that he will unhesitatingly make use of miscellaneously-bred animals; always conditioned upon the fact, however, that the converging strains are from the herds of men known and acknowledged to have been distinguished and reputable as breeders in their several ways. And in doing so he will but follow the precedents left him by the greatest breeders of the past.

"I have used the term 'miscellaneously-bred' because it is the common way of expressing the mating of animals of different families or strains of blood, but to my mind it is a misnomer, and in its general application has been given too broad an interpretation altogether, conveying the impression of the crossing of distinct breeds, rather than of animals having a common origin and carrying more or less percentage of the same blood, either in the direct or through collateral lines. All of our families of Short-horns were of miscellaneously-bred origin, and after they had been subjected to a course of close breeding long enough to establish a type and become known as a distinct family, were reinforced and renewed by the infusion of extraneous or new blood. There is not one of the great families, by whomsoever bred, but was subjected to this treatment to a greater or less degree. The fact that the cross of the new blood was made by the hand of the master-breeder was all that was necessary to make it acceptable to the votaries of fashion. Yet, when the supervising hand and brain was gone and some disciple of the departed great-one, seeing the necessity for further reinforcement, went outside for a change of blood, although the wisdom of the course was seen in better individuality, better vigor and constitution, he was met at once with the charge of treason, and the market value of the offspring was lowered two-thirds.

"Happily for the breed and the breeders, those conditions are passing away, it is hoped, never to return. The breeders of the present generation are becoming less and less subject to the craze infatuations, and it is morally certain that the man of the future will be altogether independent of them. He will breed for the best results, always keeping in mind the ultimate purpose to be accomplished—namely, the production of beef and milk; and with better material from which to select, better conditions, both economic and sanitary; better knowledge of foods and manner of feeding; better prices and quicker sales; there is no reason to fear for the future of the breed."

In all matters akin to the live-stock industry or that will aid in advancing its true welfare, Mr. Lockridge takes a deep interest, and they receive his unqualified support.

Regarding State Agricultural Colleges, he says: "The agricultural college work in this country is being carried out on proper lines. In the animal husbandry branch especially there is a possibility of creating the best stockmen the world has ever seen. The instruction by practical demonstrations; learning how to feed scientifically by feeding with balanced rations; the beef-dressing contests, giving correct knowledge of the anatomy of the animal; and the careful instruction in beef points and the features which indicate constitution and vitality—all these are of immense value, and the student acquires in a few courses what it required years for us to learn. Such a course of study opens the way for a life-work, for the student rarely goes anywhere else except to the farm after his graduation. The Nation and the various States should provide liberally for the maintenance of these grand institutions, for the Nation needs many more intelligent farmers and stock-growers."

Personally, Mr. Lockridge is a genial companion. The inherent Scotch-Irish temperament predominates. His manner, though slightly reserved, is cordial; his speech ready and fluent. When discussing his favorite subject, which has been the principal study of his life, he rises to a high plane, the energies of his nature are aroused, and his ideas have a power which can not be as clearly conveyed upon the written page. Then it is that his utterances seem to carry with them the gift of prophecy. Possessed of ample means, he is wholly unostentatious in his manner of living, and the simplicity of his life is one of its pleasing attributes.

It is not possible for a man like S. F. Lockridge to escape the friendly attentions of his neighbors, and it is not recorded that he ever attempted to do so. While deeply engaged in his stock-growing business, he found time and occasion to take a deep interest in political questions. As a result of friendships thus formed, he was nominated and elected by the Republicans of Putnam and Hendricks Counties to represent them in the Indiana State Senate for two terms, from 1880 to 1884. His father was also for many years active in the Republican councils of the State, as early as 1854 organizing the first Republican County Central Committee of Putnam County, of which he was the chairman. He died at Greencastle, Indiana, November 2, 1893, in his eightieth year. His wife died five years before, aged sixty-one years.

"Honesty is not the best policy—it is the best principle," said Mr. Lockridge. "Do right. If I discovered anything wrong in any animal that I had bred, I did not sell it for breeding purposes—it went to the butcher. My principle has been to make my guarantees good, if the animal I sold did not hold up. I have been using Scotch blood bulls for fifteen years, because I believe they are the best bulls. My determination has always been to breed the best, so I bought the best bull of a type, family not being considered."

Mr. Lockridge is proud of his parentage and deeply appreciative of the sensible rules which governed his rearing. "I am glad I was raised on a farm," said he. "I never questioned, but often wondered, when a lad, why my father turned us boys out into a 400-acre field to pull weeds by hand. His wisdom was of the best, as I have had occasion to observe in the growth of many city-raised lads. The habit of industry is developed nowhere as completely as on the farm."

The Aftermath of the Great Cattle Boom.

A Turning Point in Methods and Conditions of the Range Stock Business.—Passing Out of the Old Free Ways.—Hardships of the Change.—Bad Conditions of the Range Pastures.—Recuperative Powers of the Stock Industry in the West.—Fencing Cattle Ranges in the Boom Period.—Opposition to Fences by the Free Grass Stockmen.—Curious Phase of Human Nature.—Earlier-Time Fenced Ranges in Southern Texas.—Their Extent and Numbers of Cattle.—Abuses and Wrongs Committed in Enclosing Large Ranges.—Injuries to Stock by the Wires.—War Upon and Destruction of the Fences.—"Mussing Up" of the Range by Agricultural Settlers.—An Old-Timer's Opinions of Farmers and Fences.—Acquisition of Tracts of Range Land by Stockmen.—Land Conditions at That Time.—"Filing" on Land by Proxy.—The Old Kansas and Nebraska Quick-Action Methods.—Fencing Public Lands.—Strife with Settlers.—Leasing of Land from the Indian Territory Tribes.—A Notable Eviction.—Cattlemen Turned Out of the Indian Territory.—Consequent Hardships and Losses.—Origin of the Territory.—General Conditions in the Range Stock Business in the Later '80's.—Low Prices for Cattle.—Alleged Causes of the Depression.

The collapse of the "Great Cattle Boom," beside having extinguished the speculative craze and many minor features of the boom period, marked a general turning-point in methods and conditions of the range stock business, and brought to the front something like a revolution that continued until very radical changes had been worked in almost every part of the range country. Up to the time of the crash most of the plains cattlemen, new-comers, as well as old-timers, still were clinging with as firm a grip as they could to the time-honored notions about "range rights" to land which they neither owned nor rented.

But now they realized that such "rights" were to be likened to ropes of sand; that the beginning of the end of the open range with its free grass was at hand; and that in the future the stockmen who controlled, as far as possible, either by lease, purchase, or through the Federal land-laws, the lands upon which their cattle grazed would be about the only ones who could have any satisfactory assurance of permanency and success in their business. The former rather general hostility to such a system had been forced to give way to what sometimes is called "the logic of events," and to make room for a conviction, unwelcome as it might be to many, that the old free ways that had made western stock raising the most picturesque of the occupations of men, now were passing out, never to return.

They further realized that in addition to the surrender of "range rights" the successful stockmen of the future must have far better grades of cattle on their ranges than had been common up to that time; that the quality of range stock must be raised to a high standard by eliminating the rough, old, ill-shaped material and substituting improved breeds, for it was plain to be seen that quality was to become more of a consideration than quantity—a reversal of the former general notions about such things. From the beginning of the industry it had been commonly believed that it was impossible for the gentler breeds of cattle to thrive on the range, but during the boom many of them had been introduced, and it had been demonstrated that in most parts, at least, they endured the vicissitudes of range life about as well as the natives, and became much more valuable market stock.

Still another important general conclusion was reached by range stockmen in that time of disaster: range stock raising must be made a more orderly and more business-like proceeding; the old happy-go-lucky and improvident general manner of ranch and herd management must give way to more economical and more careful methods and to provisions for sheltering and feeding the stock in emergencies whenever and wherever it was possible to do so.

While these new conditions plainly were apparent to almost every one interested in the live stock industry in the West, the changes they required bore heavily upon many of those directly engaged in it, and had to be made in a period of depression as extreme as any in its history. Up to the eve of the collapse, the business as a whole largely had depended upon the stability of prices and the indefinitely continued use of the free range; but now the situation in which many stockmen found themselves was equivalent to starting entirely anew with the added difficulties growing out of the radically changed circumstances. Among those that had survived the immediate disasters of the crash there were hundreds of individuals and concerns that, though badly crippled, were struggling to get on their feet again. The necessity of gaining control of lands and of fencing them, and of improving the quality of their stock, imposed upon many of these the most difficult problems of finance and management that ever they had encountered.

Furthermore, the range pastures in most parts of the country had been seriously damaged and in many districts reduced to a wretched condition by the boom practice of overstocking, that had disregarded all considerations of prudence and looked only to immediate results that seemed to have been expected to work out as much through good luck or happy chance as through design on the part of owners or managers. The general plains country did not and could not have, in the condition in which Nature had placed it, productive capacity sufficient permanently to maintain any such number of cattle as this policy crowded upon it. It could bear the burden for a few seasons, but the continued trampling and close eating weakened the vitality of the grasses and thus more and more impaired the resources that were natural to the country, which, under reasonable demands, would have been sustained indefinitely, as they had been in the past, for the support of the buffalos and other wild animals that had flourished upon them from immemorial time.

View on the Platte River

The ranges in the northern and the northern-central districts had not suffered to so great an extent as had those of the southern-central and the southern, for, as a general thing, the northerly stockmen had conducted their affairs on a more business-like and less speculative basis. In the southerly parts of the country the stock-carrying capacity of the pasture-lands commonly had been diminished about one-half, but in some localities the impairment was much greater than that. In certain of the richer grazing districts in Texas, where, before the boom, from 150 to 200 head of cattle could fatten and keep fat on a section (640 acres) of land, from eight to ten acres to an animal now were necessary; although it was considered still better policy for the future to limit the number to fifty head to the section. The common average capacity of the Texas range country in the extent that it had been occupied early in the boom period was, taking lowlands and uplands as they ran, about 125 head to the section. But after overstocking had produced its inevitable results it was an exceptional section of these lands that remained capable of maintaining and fattening 100 head. Nowadays in most parts of the Texas dry country, as well as in nearly every other section of the plains region, eighteen or twenty acres of natural pasture-land of average quality are required for the support of one beef animal.

An industry that as a whole had been almost prostrated by adversities, left surrounded by the conditions and confronted by the necessities that have been outlined in the foregoing, and imperatively required to adjust itself to radical changes in methods, had to be in possession of wonderful staying qualities and recuperative powers if it were to be rehabited. The elements that constitute such qualities and powers have been characteristic of the range stock business from its beginning. Therefore, its recovery after the collapse of the boom, notwithstanding that a general overhauling of ways and means had to be made, would not have dragged along through all of the years that it did, had not still further adverse circumstances and conditions, over which cattlemen had no control, intervened to vex, dishearten, embarrass and delay the work of restoration. For, as we shall see later, the worst of the financial situation, so far as market prices for beef cattle were concerned, came after much of the wreckage made by the collapse had been cleared away.

As incidentally mentioned in our account of the great boom, some cattle companies and syndicates and relatively a small number of individual operators, especially among those of Texas, began acquiring control of large tracts of semi-arid grazing land and fencing them during the boom period, in which time this method of making sure of such range land first came into general public notice. However, as early as 1875, a few of the far-seeing and more alert of the ranchmen in the central region of Texas had bought comparatively small tracts of good pasture-land, which at that time could be had at next to nominal prices, for there was practically no demand for it, as but few men then cared to own real estate in what was a prairie wilderness, remote from all railway communications; but later in that decade, in anticipation of the speedy construction into the country of projected railways, extensive bodies of land in that part of the State, and, in some instances, in the Panhandle section, were purchased for grazing purposes. Still, among cattlemen generally, who knew of them, these transactions did not occasion much comment, nor were they regarded as having any special bearing upon the future of the open-range cattle business.

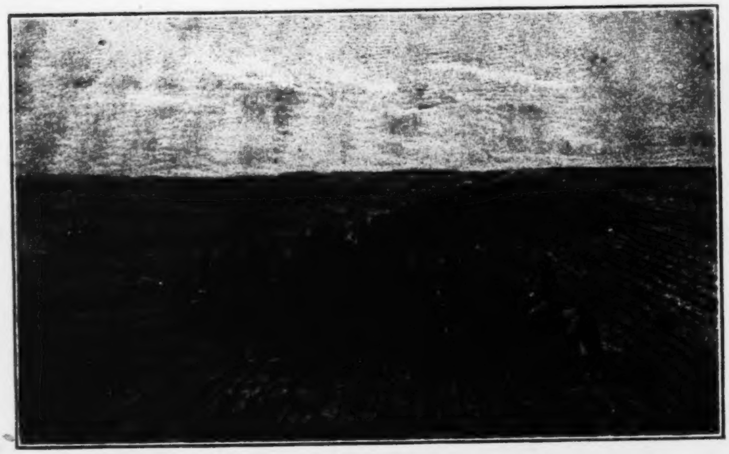
But in the boom period the "free-grass" stockmen—who were overwhelmingly in the majority as to number—came out strongly in opposition to abridgement of the freedom of the range by the purchase or the leasing of the land. They denounced such a system as one that favored corporations and men of large means to the great disadvantage of the thousands of smaller operators, and therefore monopolistic in all of its tendencies—much of which undeniably was true. As they had figured free grass in, as an important part of their assets, and firmly believed that its loss would mean their ruin, they resented with characteristic energy and vehemence the proposition that the open, free-range country should be cut up and obstructed by lines of barbed wire; and therefore looked upon those who already had obtained legal control of such lands and had fenced them, as hostile intruders, who sought possession of the earth in greedy disregard of the rights and welfare of their financially weaker, but more generous neighbors—and in this, also, there was much that undeniably was true.

Yet most of the men who held to these opinions also were, with great fidelity to one of the curious phases in human nature, holding ranges under their alleged "range rights," which rested on nothing more valid than priority of occupation, continued possession, and physical ability to keep off all others; which latter they stood ready to make effective whenever and wherever occasion arose.

It is not to be understood from the foregoing that fenced cattle-ranges were things unknown in Texas before the boom period. While fences had not previous to that time been introduced into the true plains country—the dry country—to any considerable extent, they were common in the older parts of Texas, the low country, in which the rainfall made the land finely adapted to agriculture. Early in the '70's there were a number of fenced cattle-ranches in these parts of Texas, that embraced from 20,000 to 30,000 acres of land. A few years later, ambition and success led to acquiring and enclosing still larger tracts. One cattleman near Corpus Christi had 150,000 acres under fence, and not far away was another outfit of 90,000 acres, owned by a woman, that was enclosed by a continuous board fence. In southern Texas, at this later time, there were several fenced ranches of 50,000 acres, and herds of cattle, of single ownership, numbering from 50,000 to 100,000 head, and even more, were not uncommon. Board fences were expensive, rather too much so for cattle-ranges, but with the introduction of barbed wire the enclosing of large tracts became a much cheaper, as well as a much much more expeditious, operation. Barbed wire would seem to have been an invention especially designed for use on the plains of the West, where distances, if not particularly magnificent, are great, and where boards for fencing "run into money" pretty fast.

The stockmen of the boom period conceded that it was "all right" to fence up the older parts of the country, the parts which, they said, were "bound to be made into farms." But with the farther-out, dry sections, it was different. According to their beliefs, these regions never could and never would be made farming lands. They would always constitute a cow-country, always and forever; and therefore they should be kept "open" and "free" to stockmen, as they had been from the beginning; open to anybody and everybody, so as to give every man a "chance."

Aside from the broad, general objections to the new system on the part of the "free-grass" stockmen, certain of the incidents and results connected with what already had been done in some of the Texas districts had caused great and general indignation, and also grave hardships and serious losses. In various instances in the fencing of tracts of considerable extent, stockmen owning comparatively small bunches of cattle, who were taking advantage of free grass, had been driven out and compelled either to go wandering over the stock-crowded country in search of other places, or to sell their cattle and quit the business. In many of such cases the agricultural settlers who had established themselves here and there had been made joint sufferers with these stockmen by having their land taken from them; for, if the slightest flaw were found in the titles under which these people held their claims, they were dispossessed and turned adrift. Sometimes, in the absence of defective title, the same results had been attained in Texas by buying or leasing all the land around such settlers and fencing them in; thus, with numerous petty annoyances added, making their situations intolerable, and forcing them to sell for whatever their oppressors saw fit to pay, and to go forth in bitterness of spirit to join the "free-grass" stockmen in denouncing such a system. As a rule, such proceedings as those mentioned in the foregoing had been the work of corporations and syndicates; individuals, in their acquisition and fencing of pastures, usually having been more considerate of the rights of others--or of what the latter believed to be their rights.



Breaking the Prairie in the Early '90's.

Many stockmen who had not been excluded from their free grass ranges by the fencing of pastures were incensed by other conditions entailed by the system, among which was that of being shut off from convenient watering-places. Such control of a body of land of much extent generally was arranged so as to include that of a valuable water-right, which previously had served the herds of "free-grass" stockmen who occupied adjacent ranges in which they claimed, and believed they had, "range rights"; and not infrequently the watering-place that had been thus enclosed was the only one that could be depended on within reasonable driving distance. Therefore, the consequences of a single interest greedily fencing in the water for its exclusive use and benefit, readily may be appreciated by the reader. Looking upon the barbed-wire fence as one of Satan's most infamous inventions from every point of view, as they did, these stockmen, deprived of ready access to water for their cattle, naturally regarded this particular use of the wire, to their daily great inconvenience, and, at times, to actual loss of stock, as an intolerable outrage.

The laceration of stock by the barbed wires and the consequent loss of many animals constituted another cause of hostility toward the fencing system, although fenced stock suffered in common with the unfenced. The inexperienced cattle and horses, sometimes running into the fences at full tilt, would tear their hides upon the barbs and cut themselves on the wires, and soon the wounds, even those that were mere blood-drawing scratches, might be alive with larvæ of the blow-fly (*Lucilia macellaria*), commonly called "screw-worms," which often caused the death of the injured animals, especially of the horses. This fly perpetuates its species by depositing its eggs in sores upon living animals, or in the nostrils, navel, or other parts, frequently with fatal effect upon the individual, whatever sort of animal it may be; and occasionally in like manner attacks human beings.

Fences that obstructed the way to watering-places to which stock had become accustomed to going—sometimes at a gallop, or that ran across familiar paths and beaten trails, thus endangered many animals. However, a series of experiences with the barbed wires usually taught both cattle and horses to keep away from them and to strive against being forced upon them by pressure from behind. It is said that veterans of several years' experience, cattle, as well as horses, became so cautious that they hardly could be driven between two posts, and that bunches of wise range horses later were known to follow unwired lines of fence-posts to their ends and then turn, rather than to trust the evidence of their eyes that the posts had none of the dangerous strands hanging upon them. But the younger stock endured much suffering and had many losses from contact with the barbed wires.

These circumstances and conditions in the southern country soon provoked the free-range stockmen there to make war upon the wire fences and their owners, and it was not long until extreme bitterness and enmity had been engendered between the two opposing interests. While in subsequent years there were fence wars and feuds in other parts of the range country, which are not yet entirely things of the past, none of them ever approached in intensity of feeling the animosity that was worked up in Texas within a short time after fenced pasture-lands had become common enough in the dry sections to cause serious inconvenience and loss to other interests.

From legal and some other points of view, individuals, associations, and corporations had the right to buy or lease grazing-land and to fence it for their exclusive use, and therefore the only recourse at hand to those opposed to the system, and who had been injured by it, was the unlawful one of destroying the fences. In this work the free-range stockmen and the agricultural settlers, waiving for the time-being their long-standing distrust of each other, often joined in attacks upon the common enemy, forming a kind of secret associations, and deciding by lot who should cut certain fences on a designated night, such as shut off access to convenient watering-places being the special objects of attack.

Those upon whom the task fell, entered upon it with cheerful alacrity, and, although they might have to wait until the night was far gone for an opportunity to do their work, or go back another night, they stayed with their job until it was finished. Fence-owners took to patrolling their fence-lines to guard against fence-cutters—as arduous and disagreeable a duty as ever cowboy was called upon to perform—but in spite of all of the watchfulness, miles of wire went down night after night. As still larger areas were acquired and fenced, the fence-cutters became more and more determined to check the extension of the system; for the longer the fence and the bigger the enclosure the greater was the animosity of the aggrieved ones toward the aggressor outfits.

To such an extent was local public sympathy with the wire-cutters in most places, that grand juries would not indict them nor would petit juries convict them. The opposing forces frequently came into collision, and in the aggregate many lives were lost in such encounters. As the practice was continued, it began to degenerate from excusable attempts to defend what were regarded as "rights" and from pardonable acts done in righteous wrath over losses of stock, to vicious and malicious destruction by men who had few grievances, or none at all. Whereupon the better element that had engaged in it under varying degrees of provocation, seeing the folly and uselessness of fighting against the inevitable, and being averse even to a suspicion of approving acts of mere wanton maliciousness, withdrew from the contest and began looking for lands which they themselves could control and put under fence. Public opinion then turned against fence-cutting and legislation made it a much more serious offense than it had been in its beginning.

Beside the fences there was another grievance that the open-range stockmen nursed and worried over a great deal. This grew out of the presence of the farmer-settlers, scattered here and there, who were "mussing up" the country. As our reader probably knows, the nester or granger was not popular with the range stockman. The following, by an old Texas cattle-trail "captain", who expressed himself in the year 1884, voiced the prevailing opinions of the free-grass stockmen concerning the innovations and changes that were going on in the great cow-country:

"In those days [ten years before] there was no fencing along the trails to the North, and we had lots of range to graze on. Now there is so much land taken up and fenced in that the trail for most of the way is little better than a crooked lane, and we have hard lines to find enough range to feed on. These fellows from Ohio, Indiana, and other northern and western States—the 'bone and sinew of the country,' as politicians call them—have made farms, enclosed pastures, and fenced in water-holes until you can't rest; and I say, D—n such bone and sinew! They are the ruin of the country, and have everlastingly, eternally, now and forever, destroyed the best grazing-land in the world. The range country, sir, was never intended for raising farm-truck. It was intended for cattle and horses, and was the best stock-raising land on earth until they got to turning over the sod—improving the country, as they call it. Lord forgive them for such improvements! It makes me sick to think of it. I am sick enough to need two doctors, a druggery, and a mineral spring, when I think of onions and Irish potatoes growing where mustang ponies should be exercising, and where four-year-old steers should be getting ripe for market. Fences, sir, are the curse of the country!"

Breaking the Prairie To-day.

But the fences and some of the onion-and-potato-raisers, and all that they implied, had come to stay; and soon afterward, in the gloomy times that followed the collapse of the great boom, there came into the minds of stockmen a general recognition of the fact that something more substantial than mere "range rights" was to be the basis thereafterof all, or nearly all, permanent operations in the live stock industry on the plains. Not that there was to be no more warfare, no more contentions over rights and wrongs, but that the new system steadily would be extended, and eventually prevail over every part of the range country in which there were desirable pasture-lands that could be bought or leased, or otherwise acquired on terms that would make it possible to utilize them in stock-raising.

A general change from the old free-range system to the new one with its surveys, deeds, leases, and fences, could not be effected in a few seasons nor in a few years; and even at the present time there are large areas of public land that remain open grazing-range, though much of these is of poor quality. But from the collapse of the boom it became the predominating policy among plains stockmen to obtain control of land under purchase or lease, or under the Federal land-laws, wherever they could do so. The land-laws of the General Government interposed obstacles to the lawful acquisition of any considerable body of land by one person. A man could "file on a quarter" under this Act or tnat Act of Congress, here and there, but all put together would not give him much land as range land went; but he could not lease any Federal land.

The Indian Territory was a reservation—a region forbidden, nominally at least, to invasion and occupation by white men. The States of Kansas, Nebraska, Colorado, and Nevada, having been liberally endowed with public land upon their admission to the Union, held in their own right extensive areas, parts of which were available to stockmen by lease; the others of the present range States then being Territories. The land-grant railroads also had an immense acreage in the range country that could be bought or leased, but as it was made up of alternate sections, no single body of it larger than 640 acres could be controlled without taking possession of the intermediate sections of public land.

But in the middle '80's much the larger part of the plateau range country still was Federal land, that included several lavish reservations for Indian tribes not provided for in the Indian Territory.

Texas had provided liberally by law for leasing such of her grazing lands as were not sold, and, as there were no conflicting public land interests there, the process of extending the system of fenced range pastures in the State of their origin was merely one of getting possession of land under the law; and Kansas, Nebraska, Colorado, and Nevada also had made lawful provisions for leasing their land endowments. But these resources, with those of the land-grant railroads added, were barely, if at all, sufficient to supply the needs of stockmen already upon the ground, and therefore the others had to continue their use of Federal land, to which the National Government, as formerly, made no objection, provided that no encroachments were made upon Indian and certain other reservations. But there was nothing in the law nor in the attitude of the Federal Government to warrant stockmen in fencing Federal land.

However, finding they could not enjoy undisturbed the use of such land without fencing, many of the stockmen soon began to fence it. Others leased the railroad sections lying within desired tracts, and then fenced the entire bodies, thus enclosing the alternate sections of Federal land along with those covered by their leases. Another method of securing tracts of range-land, followed by a large number of stockmen, was that of acquiring absolute ownership of public land under the land-laws by filing upon quarter-sections themselves, and having their friends, their cowboys, and other employees do likewise upon adjoining sections. After a more or less nominal compliance with the provisions of the laws, titles to these sections would be received by the various claimants and by them transferred to the ranchmen.

But this plan of nominal compliance with law with relation to land titles in the West was no invention of the range stockmen, who really were mere tyros in the business. About one-half of the present titles to real estate in eastern Kansas and southwestern Nebraska rest upon original proceedings far more nominal than anything practiced by the stockmen in the same line. There, in early times, the provision of law that required the claimant to "have" on his claim a house not less in size than certain dimensions, specified in feet, frequently was complied with by a whole neighborhood or colony of claimants joining in the construction of a very light affair of proper size that was mounted on wheels and hauled around by an ox-team from one claim to another, until each man interested in the enterprise had "had" the house on his claim; and in not uncommon instances, the unit of dimensions was reduced to the inch, and a toy house, "12x18," that could be carried under the arm, was made to serve the "requirements of law in such cases made and provided."

Fencing public lands in parts of the country where agricultural settlers had succeeded in making stands, brought on contention and strife between these people and the stockmen over titles, boundaries, and "natural rights"; the latter being the foundation of the settlers' insistence upon their right to make such use as they might see fit of public lands adjacent to their claims. Usually, when no agreement on this point could be reached, the settlers added fence-cutting to their labors, and after that, both sides occasionally did some shooting.

This fencing of public lands was, as we have said, and as it still is, unwarranted by law, and in thus taking possession of the soil, the stockmen who did so were comparable to the "squatters" of an early period in the history of eastern Kansas and eastern Nebraska, but no sensible stockman ever even pretended to believe that his fences gave him any such claims upon the land as those upheld by the old-time champions of "squatters' rights." He knew that there was only one way of getting title to any part of it, and that he could not hold for a day against an entry under the laws any quarter-section within his enclosure. His fences were merely parts of his outfit for utilizing wild pasture-land that was unfit for any other purpose under the sun, the deficient vegetation of which otherwise would go to utter waste. While no man had any legal right to it, the human nature in the one who went in and occupied it, moved him to resent the intrusion of others to his disadvantage; just as a hunter, although on land to which he makes no proprietary claims, objects to sharing with another the shooting-covert he is occupying, and makes trouble for the man who attempts to take the game the latter has killed. Fencing of public lands was merely another form of expressing what essentially was the "range-rights" theory without its vague ideas of ownership.

A large number of cattle owners of that period thought they had more or less permanently provided themselves with ranges of the best pasturage to be found in the whole country, by leasing lands from the Indian Territory tribes. Before the oncoming of the boom, cattlemen had gone into the Territory and obtained leases from the old tribes of tracts of land for grazing privileges. This practice was continued until a large part of the Indian Territory was occupied for maturing herds of Texas stock on the blue grass of the country; many of the operators being corporations and syndicates. Wire fencing having been introduced, most of these people fenced their leased lands. Their business was controlled and managed almost exclusively by white men who were not connected by marriage with any Indian tribe and could not be citizens of the Territory. The conditions resulted in discontent among many of the Indian people, for, by 1885, the range country of the Territory literally swarmed with cattle.

Cattle Grazing in the Indian Territory.

The division of the Territory and the creation of a new territory for white people from its western part had been in contemplation, and attempts had been made, in anticipation of this, by parties of white men, to settle in districts containing fine agricultural lands; but these attempts had been frustrated by the stockmen. It is to be said to the credit of the latter that they believed the Indian tribes had full power to lease their lands, and therefore that the leases were valid in every particular. The origin and details of the tangle between the Federal Government and the Indian tribes over land and titles thereto in the Territory are not of interest now, though the stockmen were the immediate sufferers. The Government recognized the cattlemen only as trespassers and declared their leases to be void and in August, 1885, President Cleveland issued an executive order directing them to vacate at once, ranges that covered an immense extent of country. Other evictions followed in subsequent years until 1890, by which time an area of land almost equal to that of the State of Ohio had ceased to be range country in the ordinary meaning of the term, and had been thrown open to settlers.

The executive order of 1885 caused a profound sensation throughout cattledom in the West, and produced consternation among the stockmen directly affected by it. Their situation indeed was a hard one. The stock business was in a state of collapse, from the Rio Grande to the headwaters of the Missouri. The question by which these men were confronted was, What shall we do with our cattle? The country was full of cattle, the range land everywhere seemed to be crowded, excepting very far north in the northern country. Hundreds of thousands of cattle had to be taken out of the Territory immediately. The stockmen had sent a committee to Washington to plead for a few months' delay in enforcement of the order to give them time to find places for their stock—to give them until the the following spring to remove their herds. The President's reply was that he had no discretion in the matter, that no modification of the order was possible, and that they would have to do the best they could.

So they had to get out and do the best they could, abandoning their investments in range improvements—ranch-houses, corrals, mile after mile of wire fencing, and the various other belongings of so extensive a business. The protests of these stockmen had been directed not against the policy that was adopted, but against the short notice, the short time that had been given them in which to comply with the order. They asked a reasonable length of time in which to make the removal with some regard for the protection of their horned property, but this was not given. The ranges of Texas, New Mexico, Kansas, Nebraska, and Colorado—the parts of the cow country nearest to the Territory—were swarming with cattle, the owners of which, in the distress of the period, also did not know what they could or would do with their property so as to "get something out of it." The drive to the far northern country, where there still might be a little room, meant the covering of a trail a thousand miles long, through a country in which for nearly the entire length the pastures already had been depleted, and in which, in that summer, water had already become scarce. Under any circumstances, and more so under these, cattle started from the southern country for the far northern ranges as late as about the first of September, would reach their destinations in a condition so reduced by the long drive that they were unable to withstand the rigors of winter in the North, for they would not have time, even were the pastures there in fair supply, to recover from the effects of their long tramp sufficiently to fit them to face the winter season.

But the cattlemen affected by the executive order of August, 1885, got out of the Indian Territory in the autumn of that year. Some took their herds into the North and had precisely the experiences they had foreseen, reaching their destination with decimated droves of "run-down" animals, a large number of which perished in the ensuing winter; others sold their stock for whatever they could get, and quit with but little, if anything in their pockets; still others divided their herds into bunches and succeeded in getting them on different ranges that could manage to support a few more head than they were already carrying.

It would seem that proceedings so arbitrary and that worked hardships and losses so great as were imposed upon these trespassing stockmen were unjust, though they were strictly lawful. A few months for preparation for the change could have made no practical difference to the Federal Government, nor to the people who were looking forward to the opportunities for acquiring homesteads in the contemplated new Territory, soon to be opened to them. The stockmen who were later called upon to move out of the Territory were less embarrassed, because they had anticipated their expulsion and therefore were not unprepared for it. But the eviction of 1885, while it now is an almost forgotten affair by most western people, really was a remarkable, as well as an unusual, experience for any body of men in our country. The reader, no doubt, has read with rising indignation of the eviction of Irish tenantry—cruel, heartless proceedings on the part of non-resident landlords. But these Indian Territory stockmen were "set out" with as much indifference to the consequences as any that has characterized the dispossession of Irish peasantry. It is easy enough to say that the stockmen were trespassers; but to one familiar with circumstances and conditions and ways of thinking in the West at that time, this off-hand disposition of the matter will not meet with approval.

The Indian Territory for many years has been classified as "an unorganized Territory of the United States," but at the time of this writing (December, 1904), there is a fair prospect for its entering soon the sisterhood of States. It has long figured upon the maps of the United States. In 1827 the Creek Indians of the southern States east of the Mississippi River were removed to this land. In 1829 the Indian Territory was created by Congress and set aside for occupancy by still other tribes of Indians who dwelt in the country east of the Mississippi from an unknown period in the past, but who were soon to follow the Creeks into this reservation in the West. Originally it was more than double its present size (31,246 square miles), which is occupied by the five civilized tribes, the Creeks, Cherokees, Choctaws, Chickasaws, and Seminoles; the reservation practically constituting five independent little commonwealths. In 1890 Oklahoma Territory was created from the western part of the Indian Territory. The treaty rights to this part had been purchased by the United States in 1886, and in 1899 the land was thrown open to settlement by white people. In May, 1890, the act of Oklahoma's organization as a Territory of

Harvesting on the Great Plains.

the United States was completed. Subsequent sessions of land were made by the Indians, and in 1893 the United States bought the strip known as the "Cherokee Outlet," and opened it to settlement as part of the area of Oklahoma, to which also was attached the smaller strip previously known as "No Man's Land," that long had been an outcast belt, lying north of the Texas Panhandle.

Bad as were the prevailing conditions in which the range stock business had been left in 1885 by the collapse of the great boom, they became still worse and remained so several years before any substantial evidence of general recovery became apparent. Through the remaining years of the decade, it seemed to most of the western stockmen that all of the powers of Fate had been turned against them and their business and were bent upon its destruction. The markets went lower and lower until, in December, 1887, the highest price for which range and Texas grass-fed steers sold in Chicago was $2.40 per hundred, with lower grades selling at proportionately lower figures; and for two or three years thereafter market conditions were but a shade better. At $2.40, a high-grade range steer of 1,200 pounds weight—which was above the average—brought $28.80, gross; from which freight, commissions, and feed and yard charges were to be deducted. Freight charges varied, according to the distance of the haul, and so did feed charges; the total charges ranging from about $8.25 per head on cattle from Texas and from Montana to about $5.75 on those from Wyoming and Colorado; thus leaving the Texas and Montana shippers only about $20.50, and those of Wyoming and Colorado about $23.00 per head. But these ruinously low prices did not constitute all of the western stockmen's troubles in the period of extreme depression, for the summer seasons ruled dry, and winter die-ups were disastrous—that of the winter of 1886-'87 being the worst ever known on the range. So it seemed, indeed, that Fate in her most unfriendly mood had taken the range stock business by the throat with a firm determination to choke the life out of it.

While everybody could see that the patient was dangerously sick, the doctors, as often happens, disagreed as to the cause of the ailment. The country at large was prosperous, its beef consuming capacity was steadily increasing, and the exports of beef and beef products were rapidly growing larger, but at the same time the men who produced the beef on the hoof were being squeezed harder and harder. Every grade of stock had become a drug on the market at the lowest prices ever known in the history of the stock business, and it was a grave problem with most stockmen to make ends meet; many of them falling short of doing so. Some said that over-production was at the bottom of the trouble; others, that it was a combination of Chicago packing-houses to control prices in their own interests, not only in their home market, but at St. Louis, Kansas City, and elsewhere; while still others pointed out that the conditions were due to a conjunction of depressing influences.

Finally the bad state of affairs in so important an industry commanded national attention, and in May, 1888, the United States Senate by resolution appointed a special committee of five Senators, consisting of Vest of Missouri, Coke of Texas, Plumb of Kansas, Manderson of Nebraska, and, Cullom of Illinois the latter, at the close of the Fiftieth Congress, being succeeded by Farwell of the same State "To examine fully all questions touching the meat product of the United States," * * * and to "make report to the Senate at its next session by bill or otherwise."

The limits assigned for the first volume of this work do not permit us to enter upon the subject of Federal investigations into the great questions relating to the fluctuations in market prices of meat. This is one of the important problems coming forward from year to year before the American people, and one which the best minds believe will ultimately be solved. The subject will receive the space it merits in the second volume of this work.

Joseph O. Dostal.

From cutting third-growth white elm wood for seventy-five cents a cord in Iowa in 1856; from driving a four-horse freight team from Iowa to Colorado for his passage in 1866, to the ownership of a cattle ranch representing a value of $70,000, free from all encumbrances, that is paying more than twelve per cent per annum, to the ownership of a large amount of well-paying Denver property, and also a list of gilt-edge securities, is the stride made by Joseph Ottmar Dostal, of Denver, Colorado, who furnishes an exceptional instance of what ambition, tempered with good judgment and aided by perseverance, patience, and appreciation of duty will attain.

Mr. Dostal was born in Reichnau, Austria, November 16, 1842. His father was a cloth-finisher. The introduction of machinery to supersede handwork made the business unprofitable, and emigration to America was decided upon. The family, consisting of the parents, five boys and three girls, reached Iowa City, Iowa, in 1856. The first work that presented itself to the head of the family was felling third-growth white elm trees—the toughest of woods. The pay was seventy five cents a cord, and it required the combined efforts of the father, Joseph and an older brother to cut a cord a day. This was an introduction to toil in the country of grand opportunities that would have made many a heart quake. But the Dostals were as sturdy and tough as the trees they were cutting, and they kept at their work until something better developed. Mr. Dostal, Sr., had an ambition to better himself for the sake of his family, and he inculcated a like sentiment of industry and frugality into his children. It was not long before he arranged for the purchase of a plot of ground on which to erect a dwelling. The ground was paid for by the oldest son working out the price for the seller, and Joseph found employment in a brickyard to pay for the brick with which to build the house. From the brickyard Joseph went to work on a ranch across the Iowa River. His pay was $6.00 a month and board. This was an advance he duly appreciated, and when out of his first month's wages he bought a "hickory" shirt and a pair of overalls, and was as proud of his raiment as if it were made of broadcloth. During the year he worked for the ranchman he never forgot his mother, and three or four times a week, after his chores for the day were completed, he would go down to the river bank, strip off his light apparel, roll it up and tie the small bundle on top of his head, and swim the river. There were no favorites in that brood of eight; the mother's love was just as strong for one as for the other, and there was no hardship too trying, no labor too oppressive, that could prevent the hard-working children very often from seeking the parental roof for counsel, advice, sympathy, and the affectionate greeting of the one earthly saint a good man will always revere—his mother.

By the time Joseph Dostal was fifteen years of age, he began working for a butcher at $15.00 a month and board. He was an apt pupil, and speedily acquired a complete knowledge of the anatomy of the domestic animals, so that he was soon rated the best butcher in his region. He was working at his trade when a call to arms to save the Union from disruption was issued by President Lincoln. While still in his seventeenth year, he enlisted at Davenport, Iowa, and shouldered a musket as a member of the 22d Iowa Infantry, attached to the 19th Army Corps. In order to make as light as possible the burden his absence and lack of support would inflict upon his parents, Mr. Dostal left a remembrance of his filial affection by paying off a mortgage on the home with his bounty money. Then he went to the war with a light heart, satisfied that he had performed his duty to those nearest and dearest to him and was discharging the duty he owed his adopted country.

He was as good a soldier as he was a son. The forced march, the skirmish, the call to battle, were each met with the same alacrity, the same punctuality, and the same brave spirit that marked his entire life before and after the bloody carnage. His regiment participated in the siege of Vicksburg and Jackson; it was in the Shenandoah Valley campaign under the gallant Sheridan; it was an incalculable aid to Sherman in his memorable march to the sea; and it tramped over the extended territory of the Confederacy, as far south as Alexandria, Louisiana, even to Texas, and to the southern coast. In the winter of 1864 Mr. Dostal was attached to the commissary department while the corps, was lying at De Croist Point, Matagorda Bay, Texas, and as one of the butchers helped to slaughter 16,000 sheep and thousands of cattle to supply that part of the United States Army.

August 25, 1865, Mr. Dostal was honorably discharged. A few months after his return home he found an oppotunity to drive a four-horse team drawing a load of freight bound for Colorado. This was in April, 1866. He reached Central City, then a rising gold-mining camp, the following month. Here he secured a position at his trade. His salary he scrupulously saved, for his income from certain parts of the animals, which were given to the man who did the slaughtering in those days, was sufficient for his expenses. In eighteen months he had over $1,000 to his credit in the local bank. Then he returned to Iowa and married. Returning to Central City, he went into partnership with his old employer, opening a store at Nevadaville, a nearby village. The first year they divided $3,200 in profits. By 1870 Mr. Dostal became sole owner of the business by buying his partner's interest. The fact that there were five other butchers in the town of Central City did not deter him from pushing. He was in a crowd, and his temperament was to be out of the crush and forging ahead. He sent to California for fruits and vegetables to add to his meats, and thus had the first "city market" in the town. The experiment was a costly one—lack of knowledge of certain details resulting in a heavy loss on the shipment. He profited by this experience, and it was no hindrance to his attaining his ultimate purpose. Success crowned his efforts, for in a year he had the finest equipped market and the best trade in the whole Territory. His progress was highly profitable, barring three fires that destroyed his place of business. The last fire was on May 21, 1872, and it wiped out nearly the entire town. Three days later Mr. Dostal was doing business in a frame shed alongside the only remaining building, and a few weeks after, the temporary part of the town was clustered around him. Seven months after the fire, on December 19th, his new brick store and residence building was completed and paid for, and a note calling for $5,000 was also paid.

The following year Mr. Dostal increased his business interests by investing in sheep and cattle and grazing them in the valley between Boulder, and Golden, Colorado, and when fat, selling them dressed to the meat-dealers in the mountain towns. In 1874 he bought 8,000 wether lambs in New Mexico and drove them into Eastern Colorado to fatten on the grasses then so abundant. Many who are numbered among the wealthy and useful men of Colorado laid the foundation of their fortunes far out on the plains in the perilous days of Indian invasions, and Joseph Dostal was among the number. The first season he lost 1,900 head of his sheep through a cold rain that came up shortly after shearing. During the winter of the following year he lost 1,500 head in a severe snowstorm. Undaunted by these losses he kept on, adding a large flock of California-bred ewes and the best Lincolnshire and Cotswold bucks from breeders of Canada. The Lincolnshires proved a failure. Their heavy load of fleece was more than they could carry against the high winds of the prairies; they would be thrown down and unable to regain their feet, perished. The Cotswolds were very satisfactory, and to these Mr. Dostal added Shropshires and Rambouillets. The latter, in his opinion, are the best all-around wool-mutton makers for that part of the West. Mr. Dostal made a great success in the handling of sheep, shipping from 8,000 to 10,000 annually up to 1893, when he closed out that branch of his stock-growing business. At one period of his sheep-growing career, when wool was down to five cents a pound and wethers sold at $1.50 a head, Mr. Dostal took up another experiment; it was the fattening of sheep in feed-lots. He drove 2,100 head from his headquarters at Aroya, Colorado, to Las Animas, a lower altitude. He built pens, feed-racks, and sheds, bought wheat, oats, corn, and hay, and after feeding six to seven months and deducting all expenses, ordinary and extraordinary, he found he had made a profit of seventy-five cents a head. This convinced him there was money in fattening sheep in Colorado, and he declares if he were younger that it is the business he would follow exclusively.

Owing to ill health, in the spring of 1875, Mr. Dostal sold out his Central City business and chose the out-door life that the handling of live stock demands. He first located at Godfrey, now Agate, Colorado, where he remained for a year. Then he exercised his soldier's privilege and took up a homestead of 160 acres in what was Bent, now Cheyenne County, at a point since named Aroya, on the main line of the Union Pacific Railroad. He has maintained his herds there ever since, making him the oldest settler in the county. It was at Aroya that he started the JOD brand of cattle, which have since gained him an enviable reputation among stockmen. In 1880 he went to Marshalltown, Missouri and bought three carloads of high-grade Shorthorn heifers and three registered Shorthorn bulls. This heavy investment was almost wiped out the second year thereafter. Texas fever had got into the herd from one of the many trail-herds moving from the South to the North in those days, and he lost about 150 head of his fine stock. In order to hold his range he now made his first investment in Texas steers, and from 1882 to 1893 he continued in the business of buying Texas yearlings, running them on the public domain for three or four years until they were good beeves, and in breeding from his Shorthorn herd. As fast as he sold his Shorthorn steers he replaced them with promising cows, and also sold part of his bull crop, replacing them with males of other Shorthorn families to prevent in-breeding. He was aiming always to improve the quality of his cattle, and frequently attended Eastern sales for new blood.

In 1893 he decided to change the male end of his herd, because the grass conditions then demanded an animal that would do better in a short-grass country than the Shorthorns. He bought seven registered Hereford bulls at a sale of Missouri-bred stock held at Denver. These bulls he put with his herd of Shorthorn cows, and the offspring of the cows proved a great success. It was a strengthening of the fine bone of the Hereford, a duplication of the rustling qualities of that breed, and a duplication of the frame of the Shorthorn to carry the meat and fat. For a number of years he did not market his steers until they were three and four years old, and then they weighed 1,200 to 1,400 pounds, only changing his method when the demand for "baby beef" set in. As often as expedient he would market the old cows and bull calves, keeping his herd well trimmed up and in a thrifty condition. The excellence of his herd received an unqualified endorsement from his fellow-stockmen in January, 1899, when he was awarded first prize on a carload of ten-months-old calves, bred and raised on the range. They averaged 530 pounds, and were exhibited at the Stocker and Feeder Cattle Show held at Denver. His range-bred feeders and fat stock have always brought at least fifty cents per hundred weight more on the Denver and Kansas City markets than the ruling quotations. His herd is at the top-notch of quality. He has 1,200 cows, all of fine frame and good milkers for their calves, and forty-odd registered Hereford bulls.

He has an ideal location for a cattle ranch; it lies at an altitude of 5,000 feet above sea level and although 250 miles from the base of the Rocky Mountains, is well protected from the severe storms from the Northwest. The weather is never rigidly cold, snow never lies any long time, nor is it oppressively hot in summer. The Big Sandy River furnishes a running water supply nearly the entire year, depending upon the extent of the snowfall in the mountains; but because of its deep sandy bottom the water sometimes sinks out of sight. In order to supply his herd regularly, Mr. Dostal conceived the idea some years ago of prospecting for the settling point of the water, and to his surprise he had to dig only about twenty feet, and now he has all the water needful all the year round, raised by windmills into tanks and artificial lakes or reservoirs. From these lakes he has irrigated some land from which he produces alfalfa, and he is satisfied that stockmen, by similar enterprise, can secure for themselves all the winter feed desired from almost any section in that part of Eastern Colorado. One reason why he always has good cattle and is free from winter losses is because he feeds the old cows and weak calves with corn-chop and bran during severe winters, using hay for roughness if the weather is too bad to turn them out. He does not feed heavy, for he says: "An animal is as cunning as some individuals. If the latter are fed well and do not have to do any work they would rather almost starve than to hustle for their feed. I, therefore, feed light. It costs me $1.00 to $1.50 to carry the weak calves and $2.00 to $3.00 to carry the old cows through a winter, and they are in good condition when grass comes. I applied the same rule to my weak lambs. It would cost me about fifty cents a head to carry them. The fleece was worth that the next year, and I had the animal besides."

If there are any privations and hardships that Mr. Dostal is not familiar with, they are few. When but a boy his hard experience taught him full well the intrinsic value of an earned dollar, and in order that his children might also appreciate the value of money, he made it a point to pay them for services rendered. It was no hasty scramble for wealth that he made. He kept right on with his methods, with his own ideas, to work out his ambition. He was energetic, and fully possessed with an earnest desire to do something that would alike benefit humanity and himself; something that when life's rugged battles are over could be pointed to as an evidence that he had lived to some good purpose, and that the world or a portion of it was benefitted by his having lived. Whoever becomes intimately acquainted with Mr. Dostal will recognize in him a kind-hearted, true man, whose every impulse is honest; who is steady and methodical; always ahead in his financial appointments; does his own thinking and acts on his own judgment, and seldom fails to do better than many who make for greater pretentions. Because of his sterling qualities he has the respect and confidence of his fellow-men.

He was one of the organizers of the first stockmen's assocciation in Colorado, at Golden; formed for the protection of its membership against losses by rustlers. Mr. Dostal was one of its most aggressive members, for his principle was to pursue relentlessly all violators of law. This association was later reorganized and named the Cattle and Horse Growers' Association, of Colorado, with headquarters in Denver. He is also a member of the executive committee of the Lincoln County Cattle Growers' Association, with headquarters in Hugo, Colorado; and to the aggressive policy of going after, capturing, and punishing thieves, Eastern Colorado stockmen owe their present enjoyment of the full rights to their property. Ever since 1900 the Lincoln County Association has sent Mr. Dostal as a delegate to the meetings of the National Live Stock Association, and in 1904 the Governor of Colorado appointed him a delegate to the same body to represent the State. The only other organization of which Mr. Dostal is a member is the Grand Army of the Republic.

In June, 1868, Joseph O. Dostal and Mary Hamllik, a native of Bohemia, were married at Iowa City, Iowa. The bride had come to America with her parents in 1864. Immediately after the wedding the couple went to Nevadaville, Colorado. When Mr. Dostal removed to the plains of Colorado his faithful wife shared the discomforts of the desolate existence, but he saw to it that she shared none of the dangers incident to the Indian invasions so frequent during the '70's. Whenever there were any indications of uprisings, Mr. Dostal would send his wife and children to Denver, where they were assured of better protection. In 1881 he bought a residence in that city, and the children were given the advantage of the best educational courses possible. The children of Mr. and Mrs. Dostal are as follows:

Catharine Adell, born in Central City, Colorado, April 3, 1869. Her education was completed when she graduated from a Catholic seminary in Denver. She is the wife of George M. Livingstone, president of the Vulcan Sheet Metal Works, Denver.

George Ottmar was born in Central City, Colorado, January 15, 1872; graduated from the East Denver High School with high honors, and and since 1891 has been a teller in the Denver National Bank. In 1900 he was united in marriage to Gertrude Schlacks, daughter of Henry and Christine Schlacks, of Denver. Mr. Schlacks was for many years superintendent of motive power for the Denver & Rio Grande Railroad Company.

John Frank was born in Denver, Colorado, October 10, 1879. After graduating from the Denver Manual Training High School he took a two-years course in electrical engineering at Boulder (Colorado) University, and finally he graduated from Purdue University, Indiana, as an electrical engineer. He holds a responsible position with the Denver Gas and Electric Company.

That success should come to a man who will do and dare for an honorable purpose is but a just recompense for faithfulness that is in the hands of the Higher Power to give. With an ambition to do what is right and to accomplish good is unquestionably coupled a love for those of one's own flesh and blood for whom one labors. Therefore, it was Mr. Dostal's love for his good mother and next for his devoted wife, who has shared his trials and hardships, and for the children she bore him, that was the leading incentive for his persistency, patience, and perseverance.

"My only ambition in life has been to make a success," says Mr. Dostal. "I did not count so much on the dollars that this success would bring as on the satisfaction that would come to me should I be successful in what I undertook. I have paid out in dollars far more than the results from working out a certain plan have returned to me, but I have succeeded in my plan and proved that it was feasible and that it would be profitable to others; for you know, as a rule, original experiments are the most costly. The reservoir and the irrigating ditches I have on my ranch at Aroya have demonstrated that water can be obtained at shallow depth and stock feeds can be raised on those plains.

"Another ambition I have had was to give my children an education, so they would not be subjected to the annoyances and chagrin often caused by lack of education.

"When I started in business I took an oath that I would never go on anybody's note as security and that I would never let a bill I owed come to me twice for payment. I have had less money than some people, but my credit was always good. I never had a check protested, and never overdrew my bank account."

As to the demands of the live stock industry, Mr. Dostal says: "The live stock business requires more care and attention than any other business, to make money. I do not know of a business man—and it is surely not the manufacturer—who puts in as many hours in a day as the stockman. But this labor has its rewards. By breeding the best, we get the best prices on the markets, and as the business is one that keeps a man in the open air, he grows strong and vigorous; he grows up with nature, and he stands a better chance to live long to enjoy the autumn and winter of life."

Live Stock Tragedies of the Range.

Destruction of Animal Life on the Range by the Forces of Nature.—Disastrous Losses of Stockmen in Earlier Times.—Effects of a Freeze.—The "Blizzard" and the "Norther."—Comparative Effects of Drouths and Hard Winters.—The Oncoming of a Blizzard.—Behavior of Storm-Beaten Cattle.—Sufferings and Losses of a Drifting Herd.—Early Live-Stock Tragedies in Texas.—Memorable Winter on the Kansas Ranges.—Effects of Severe Winters in the Northern Country.—Pitiable Conditions and High Death-Rate Among Cattle.—Crude Means of Providing Food for Starving Animals.—Examples of Losses in the Southern Country.—Noted Pecos River Drift in the Winter of 1884-85 and the Mortality It Caused.—The Great General Die-up of the Winter of 1886-87.—Fearful Ratio of Losses.—Theodore Roosevelt's Prediction.—Bewilderment and Discouragement of Cattle in Hard Weather.—Their Helplessness When Confronted by an Obstruction.—A Line-Fence Tragedy.—Consequences of Drouth and Dry Years in the Range Country.—Famishing Years in Texas During the Civil-War Period.—Mortality Among Cattle in Dry Seasons.—Greater Endurance of Sheep in Winter Storms and Summer Drouths.—Stock Losses in Recent Unfriendly Seasons.—Provident Methods of Present-Time Range Stockmen.

The reader who has followed us through the history of the origin and development of the live-stock industry on our western plains, perhaps needs no further evidence to make plainer the fact that it has been a business of many vicissitudes; of years of enriching prosperity that abruptly was broken down by times of extreme adversity; of great profits in seasons, between which frequently were sandwiched those of heavy losses. While it often happened that losses were due to causes of one sort or another for which the stockmen themselves largely were responsible, such as over-production, over-stocking their ranges, and crowding the markets with immature or otherwise unsalable stock, their property and their business always have been peculiarly subject to disaster through the operations of those of Nature's forces that commonly are referred to as "the elements." In their destruction of animal life these forces have had multitudes of victims among range-stock in every section of the great grazing region of the West; and not a few of the brave and determined men charged with the duty of staying with and looking after the herds and flocks have yielded to death from the same causes.

In what has gone before, incidental references have been made to such disasters, but without entering into particulars. Many of these tragedies of the range have been of appalling magnitude, but it is not the writer's purpose here to go further into consideration of them than to deal with several characteristic examples of the destruction and ruin that frequently have been wrought by cold, storm, and drouth in the range country.

These losses, especially those due to winter's rigors, relatively were far greater in number of animals and therefore also in money values among cattle than among sheep. The latter usually are in from fair to good condition as to flesh and fat and as to fleece by the oncoming of winter, and with their thick coats of wool easily can weather the extreme stresses of cold and storm.

In the old times, when the average western cattleman invested the bulk of his money in cattle, turned them loose on the free grass of the open plains, and largely trusted in the Lord and good luck for a happy outcome for the venture, disastrous losses from causes usually classified as "acts of Providence" were more common than they have been in recent years. But even at the present time, with all of the careful and provident methods that characterize the management of stock-ranches in the West, there is no guarantee of absolute immunity from losses in "die-ups" due to the elements in a very rigorous winter, or to protracted extreme drouths in the summer. The chances for such losses have been greatly reduced, but as long as it remains impracticable to shelter range-cattle against extreme stress of stormy winter weather in the manner that farm cattle usually are sheltered, and as long as the range country continues—as it probably always will—subject to periods of excessive dryness, the apprehensions of misfortune to come from these operations of Nature that are beyond control will not be absent from the thoughts of range cattlemen while there is one of them left in the business.

Very cold and stormy winter weather with accompaniments of sleet and snow in times past has done its work of destruction quicker than drouth and usually also more mercifully; and, while it is now impossible to determine, with any near approach to accuracy, which has caused the greater mortality among cattle, taking the range country throughout, it would seem from the accounts of memorable die-ups that are at hand that Boreas has worked greater havoc than have the parching rays of Old Sol. A few hours of thaw after a heavy snow, followed by a freeze, made the situation of range-cattle desperate. The grass was sealed under a frozen mass, the vitals of the creatures were chilled, the animals quit trying to find anything to eat, but gathered in dismal groups and awaited their fate in dumb apathy.

The high, cold, searching wind, accompanied by blinding sleet and smothering snow, that in some winters and even early in the spring sweeps down from the far-northern extension of the Rocky Mountain region, spreading and tearing over immense areas of country, and that is known as the "blizzard," has worked fearful destruction among range-cattle. While this name for such a storm is the common one over nearly the whole of the United States, the blizzard often is in Texas and elsewhere in the southern part of the plains country called a "norther." But specifically a norther is a driving gale from the north that hurtles over Texas and eastern New Mexico, and, coming into collision with preceding warm, moist breezes from the Gulf, causes sudden and extreme depressions in temperature.

"A wind came rushing and roaring across the prairie like a living thing, an icy wind which all Texans know and dread—a 'norther.' No one who has not encountered it can form any idea of its swift descent, its terrible force, its bitter cold."

By the way, the word blizzard is not, as rather generally supposed, an "Americanism." It is a comparatively recent addition to American speech, but long has been in use in England as a term for a snow-blast. It was derived from the old Anglo-Saxon *blæsan*, meaning "blow"—as the wind blows.

In Texas, New Mexico, and Arizona drouths have predominated as agencies of destruction among range-cattle and sheep, though blizzards have done deadly work there among them; but to a greater extent in Texas than in the two Territories.

In the central-range districts—western Kansas, western Nebraska, southern Wyoming, Colorado, Utah, and Nevada, winter conditions generally have caused more loss of life among stock than have the drouths of summer, and, while extreme cold had many victims, much the greater part of the trouble was due to blizzard conditions, which reached their worst in the plains region.

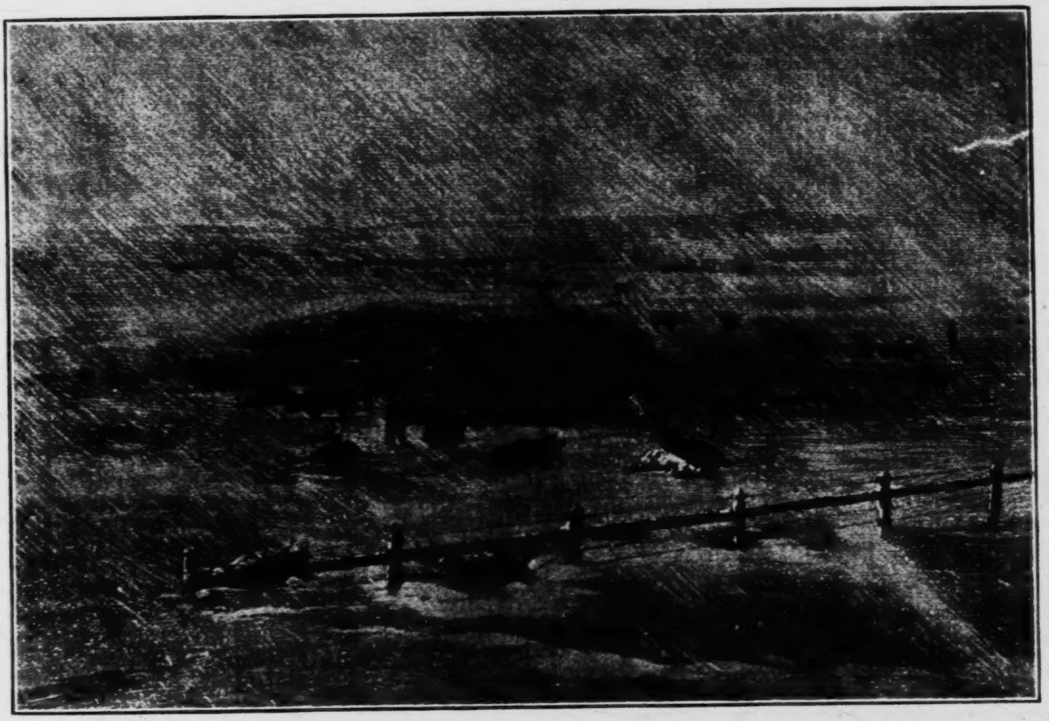
The northern range country—Idaho, Montana, northern Wyoming, and the western parts of the two Dakotas—never has been so much subjected to seasons of serious drouth as have the southern and the central. But at no time has a robust blizzard southward-bound been known to jump over it, and furthermore its winters occasionally have developed, especially upon its plains, "cold snaps" of Arctic severity—of temperature as low as fifty degrees below zero, as indicated by spirit thermometers.

The hurricane blizzards, to which the western range country at large is subject, and which also spread themselves over other parts of the United States, rise to their worst on the plains, where with great fury they drive sleet and snow almost horizontally, and at a high and stinging velocity as they sweep down from the far-northern land of their origin. When a blizzard continued in command of the range country several successive days, as sometimes happened, hunger, cold, and exhaustion from drifting many miles with the storm left the land strewn with the carcases of cattle that had given up the struggle.

In the northern parts of the range country extreme cold in itself usually killed only the animals that already had become weakened from one cause or another; but when it had been preceded by a cold rain that had turned it into a heavy fall of snow which covered and sealed up the pasturage, the stronger beasts soon would become so reduced in strength by lack of food and persistent wanderings in search of it in the intense cold as to fall victims to the rigors of their situation. Such conditions as these in some winters during the times in which range-stock had to rustle on the natural pasture for all it got to eat, caused appalling losses of cattle in the northern country.

The streams being frozen tight, the animals had to depend upon the icy snow for satisfying their thirst. They learned to eat snow, but as a general thing did not have wit enough to paw away the snow and uncover the buried grass. Where they exposed it by their tramping they pulled it out by the roots, but did not comprehend that its exposure was due to the tramping, and that by intentional tramping or pawing for it they could get more. The cow-ponies understood this, and intelligently dug out the covered grass, and so managed to get through the hardest of times.

When a blizzard came, the range-cattle turned tail and "drifted" with the storm—that is, they wandered aimlessly in the direction the snow-laden gale was blowing, which usually was southward. The oncoming of a blizzard was heralded by unmistakable signs. The sun was hidden behind a leaden sheet of cloud that dipped below the entire circle of the horizon, but was thicker and darker in the north and northwest, and there was a strange feeling in the quiet colder-growing air. The silence of the range became deeper and more oppressive. The cattle stop feeding, raise their heads, and look uneasily toward the north, where some white cloud-scud is whipping up above the ground-line. They do not return to the grass, but presently begin to move restlessly. The air is colder and is in motion, and with its movement there is a quivering, and a moaning rustle



Death in the Blizzard

is heard in the sagebrush and the swaying grass. The cattle shake their heads, and as they run here and there they mutter, and the sound of low bellowing comes from them. Their understanding of some of Nature's ways is better than that of man. They know what is coming. The breeze becomes a gale of more than icy coldness, and the startled, shivering cattle bellow louder. Then, with a sweeping rush, the blizzard itself whirls down upon them. Horizon, hills, draws, and all the rest vanish from sight in an instant in the whirl and swirl of sleet and fine snow that sting and smart all living flesh they strike.

The cattle turn their heads from the blast and huddle close like a flock of sheep, and bleating calves that were left outside try to find shelter by pushing themselves into the huddle or crawling under the bodies of the beasts on their flanks. The cowboys, with duty first in their thoughts, and enduring greater suffering than that of their cattle, use in vain all of their artifices to get the herd in motion. But it will move only upon its own volition. The close-packed mass now is almost blanketed with snow and sleet. Presently some steers at the head, where they had been shielded a little, unsteadily move forward. Those next behind follow in a faltering way, and soon the entire herd is in motion. The cattle are drifting with the cruel storm, and where and how the drift will end no one knows.

In some instances of long-continued blizzard weather in the open-range period the survivors of a herd were known to drift distances of a hundred miles or more.

As the cattle moved onward in the fury of the storm they were guided only by the course of the freezing gale. Icicles formed and hung down over their eyes, blinding their sight. But if this had not been so, the driving sleet and whirling snow so obscured the way, as they did everything else around, that the bewildered creatures could do no more than stumble forward in the direction the tempest was driving. The herd-formation soon was lost in the stringing out of the cattle in a line like that of a trail-herd. The stronger and better-conditioned were at the head, while back in the "drag" the weaklings were beginning to fall down and out. Some became detached from the column and staggered on alone—but not far. The gregarious habits of cattle are so deeply seated that these isolated creatures would appear utterly to lose heart and hope and to give up soon after becoming separated from their companions.

The driving wind swept the snow into the ravines (*arroyos* in the South, *coulees* in the North), and, where these were of no great width, in a few hours filled them from side to side—a bed of yielding snow five, ten, fifteen feet deep, or perhaps more. When the groping cattle came to the verge of one of these pitfalls the way across, so far as their dimmed sight could see, appeared to be a level or nearly level continuation of the ground-surface on which they trod. On they went and were plunged into the death-trap, tumbling upon each other in a sickening heap of struggling, bellowing, half-frozen, crippled, smothering beasts. The relentless storm swept more snow in upon them and covered them over.

Sometimes a bunch of blizzard-driven cattle would seek refuge under the lee of a bluff, where they kept the snow tramped down upon the ground they occupied. But it piled up around them higher and higher and walled them in. The grass under their feet soon was eaten out by the roots, and as they could not escape from the trap the poor creatures slowly starved to death.

In these tempests of Arctic rigors, the heat of the cattle's bodies melted some of the sleet and snow with which they were pelted, and the water, trickling on the hair, became ice again within a quarter of an inch of the animals' hides. Small masses of accumulated ice locked the jaws of many of them. Icicles formed on the "points" of their bodies, and as they became larger and heavier and were made to swing by the movements of the cattle to which they were attached, they began to pull the hair out by the roots. This was continued until the icicle was released, leaving a patch of bare, red skin.

So this tragedy of the cattle-range went on to its end. The trail of the drifting herd was marked here and there in every mile of its movement by the bodies of its members that had reached the limit of their endurance and had fallen in their tracks and died. Here a mother cow with her calf by her side; over there two or three yearlings that had perished together; farther along are the carcases of other cows and of some steers; and there is a bull that never again will fight for the lordship of the herd. It is a trail of Death and probably of financial ruin to somebody; and perhaps somewhere on the way lies the stark body of a cowboy wrapped in a winding sheet of snow.

The cattle of a wide expanse of range country have been driven far southward. The Arctic hurricane had been impartial—it made all go along. A herd that numbered several thousand when the sun arose yesterday morning, in the blackness of to-night might count out several hundred. Probably there will be some left after the trouble is over, but possibly the remnant may come afront of an obstruction to its weary march that it can not pass. If so, the remnant will linger there until the fate of the majority overtakes it. Either way there will be "business" early in the spring for a new kind of "hide-hunter." The tanners will pay something for the hides of these frozen cattle.

The first great losses of cattle-life on the range from causes due to the elements, of which we have any definite account, occurred in Texas during the Civil-War period, beginning with the first year of the war; and the first notable loss from a blizzard anywhere in the great range country befell the cattlemen of that State in the winter of 1861–'62, in which season destructive storms repeatedly swept over the Texas grazing districts. Perhaps the Texas cattle of that period succumbed more readily to the violent changes of temperature and the blasts of sleet and snow that characterize the blizzard than the range-stock of later times. However this may have been, the losses were very heavy. But, while many thousands of cattle perished, the destruction was only relatively great, and the waste was not comparable in magnitude with that due to drouth during the war-time, and to which a passing allusion has been made in a former part of this volume.

For upward of a decade after the Civil War the "die-ups" of cattle from blizzards and drouths in Texas were not of great magnitude, if such as occurred be measured by some that happened in later times, although there were several years in which losses due to these causes aggregated large numbers. As most of the Texas cattlemen operated on or near the borders of the older parts of the State until past the middle of the '70's, the herds of many of them were less exposed to disasters from the elements than when they had taken full possession of the higher and drier regions of southwestern, western and northern Texas a few years afterward. Still the bones of tens of thousands of their cattle had been left to bleach on the prairie.

However, the southern cattlemen of that period regarded a loss from blizzards, drouth, and accidents, in an ordinarily unfortunate year, of from 12 to 15 per cent., or even 20 per cent., as a thing to be expected and as an unavoidable burden upon their business.

The most memorable range disaster in these times occurred in the winter of 1871–'72, when one furious blizzard caused the death of about a quarter of a million of Texas cattle in central Kansas alone within a week, and of a large number among the herds of the pioneer cattlemen elsewhere in the easterly parts of the central region. The reader will recall from an earlier story in this volume that in the season of 1871 the number of cattle driven north from Texas reached the highest ever known in the history of the old cattle-trails. Owing to the depressed condition of the markets in that year a great many of these herds were held in Kansas until late in the autumn in expectation of a market-change for the better. Disappointed in this, most of the cattlemen who had held on, decided to winter their herds on Kansas ranges; and it was estimated that nearly 300,000 head of cattle remained thus to be held over in that State. But as the pastures had been depleted far around the shipping-points and the supply of prairie hay nearly exhausted by the waiting herds, the drovers had to take their cattle farther west, where they expected to find plenty of buffalo grass. But the range-pastures of Kansas were not in that year up to their average condition, and to make matters worse, immense areas had been burned over by the autumn fires. Therefore, many of these herds, when they reached their wintering-places, found thin picking, and as they already had become reduced in condition and were unable to better t upon the insufficient pasturage, they were poorly prepared to withstand the effects of severe winter weather.

Soon after these herds had been distributed upon their wintering-ranges, a general heavy rain set in, accompanied by a cold wind that froze the water as it fell on the ground, which became covered with a sheet of ice that in many places was nearly two inches in thickness; the short buffalo grass being so heavily encased that the cattle could not get at it. On the second day the rain changed to sleet and snow, which fell continuously for three days and three nights, and which were driven by a bitterly-cold gale of wind. The herds drifted with the storm for a day or so, and then the animals became scattered and began to perish by thousands. Wherever the poor creatures, weakened as they were by lack of food, stopped and laid down to rest, they froze to death in the reclining attitudes they had taken. Others staggered on until, from weakness and the chilling of their vitals, they stumbled and fell and were unable to get upon their feet again. Men and horses suffered severely, and some of the former and many of the latter perished with the cattle. The ratio of loss among the stock was enormous, entire herds being almost wiped out; the mortality among most of them ranging from 75 to 90 per cent., and in the cases of some herds only about 3 per cent. of the cattle could be found alive in the following spring.

After the winter weather moderated, some of the dead animals, the carcases of which dotted the land for miles, were skinned by parties of men specially organized and equipped for the work, but this salvage did not yield a large amount above its expenses, and of its net proceeds the unfortunate owners of the cattle received very little. One account says that about 100,000 hides were collected in the country that was the scene of this tragedy and shipped east over the Kansas Pacific Railroad.

This disaster, in which it was estimated about 250,000 head of cattle and many hundreds of horses were lost, brought ruin upon most of men who owned herds that were involved in it. While this blizzard was more severe in the region in which these drovers had their stock, it was general all over the plains down to the borders of Texas, and the range people who had before that time established themselves in southern Nebraska, southeastern Wyoming, and in Colorado lost thousands of their cattle, a large part of these consisting of cows.

As may readily be understood, the mortality among cattle in the northern districts from exposure to the conditions of severe winters has been much greater than from any other cause due to the elements. In seasons of unusual cold, with the pasturage buried under deep snow, from one-half to two-thirds of the cattle in extensive sections of the country have been known to perish. It has not been a rare thing for some of the survivors of herds caught in extreme pinches of Arctic-like weather to have had their ears and tails so badly frozen that the larger parts of these appendages later would drop off by natural amputation; and even horns in like manner have gone with tails and ears. The character of blizzards there, aside from the more piercing cold of some of the gales, has been much the same as in the remainder of the range country, and therefore what has been said of some of their consequences in these other parts applies with equal force to the northern ranges, where tragedies similar in kind and in magnitude repeatedly have been enacted. But as recounting their particulars would be a needless

A Prairie Fire.

repetition of things already said in description of blizzard effects, we shall pass on to consideration of an example or two of the consequences of other severe winter conditions which, it may be said, usually are confined to the northern-range country.

These are such as have resulted in the freezing to death of an immense number of cattle in exceptionally cold winters and without the co-operation of blizzard conditions. Drifting long distances with blizzzard-storms is very exhausting to their vitality and contributes largely to their undoing; but this is not involved in the conditions under consideration here which have decimated many herds that had not wandered far, if at all, from their accustomed ranges.

Cattle in fair condition and with a sustaining quantity of daily food can withstand very low temperatures through a long season, but when the pasturage is their only dependence and is covered deep with snow having only a crust of ice upon it, and they have to wander in intense cold in search of an occasionally exposed bunch of grass that makes only a few mouthfuls, they become so reduced in a short time as to succumb to the frigid bitterness of the situation. Over-stocking the ranges frequently contributed toward bringing many cattle to a condition which prepared them to become early victims to the freezing rigors of an unusually severe winter.

About the first die-up of great magnitude from extreme cold, as distinguished from losses due to blizzards proper in the northern-range country, was that of the winter of 1879–'80, when the common rate of mortality among seasoned stock was from 25 to 30 per cent., and among other kinds much higher, amounting in some instances to as high a figure as 90 per cent. Of the former there were many herds in western Dakota and in the Yellowstone Valley in Montana, in which the losses averaged above 25 per cent., during that winter. The cold was so intense that most of them had to be left to take care of themselves much of the time—to go where they would. They sought refuge in ravines, in clumps of wood-growth, and in such other places as would afford some protection from the piercing winds, and the weaker ones, once in these places, never left them. After devouring every vestige of living-brush and of grass that became uncovered by the trampling, the stronger would move to another and similar place, but bunches of the weaker, now reduced to the verge of exhaustion, remained in dumb misery until they froze to death.

In the following spring in almost every such place of shelter in the districts referred to, groups of victims were found, their bodies usually lying close together and very frequently one was stretched across another. The higher degrees of mortality, to which we have referred above, were among cattle driven to these ranges from the South that had arrived late and had been thinned down by their long pilgrimage; and it was in herds of these that had been located in the Powder River country that losses running as high as nine hundred head in each thousand occurred—losses that emptied the pockets of owners. In some parts of the country the cowboys saved their herds from total annihilation by cutting down cottonwood and other trees, upon the twigs and smaller branches of which the hungry cattle eagerly browsed; pushing and shoving each other and scrambling around in their frantic efforts to be first in getting within reach of this sorry provender, from which under ordinary circumstances they would turn away in disdain.

The winter was an unusually hard one all over the range country. The previous summer had been dry, and the pasturage nearly everywhere was badly burned out and so left in poor condition for the subsistence of cattle in a rough winter. Over the central and the southern country the winter had much severe blizzard weather, varied by frequent cold rains. These conditions were worse in Texas than elsewhere, and at the ensuing spring round-ups it was ascertained that there had been a loss of above 30 per cent. over the more exposed ranges of the State; while in localities or districts in which the pastures had been very poor and the effects of unfriendly weather extremely severe, the losses ranged from 60 to 75 per cent.

During the dismal winter some of the Texas cattlemen, in their straits to save their starving stock, turned to that species of cactus commonly known as the "prickly pear" and sometimes called the "Indian fig"; and it became the daily occupation of many a cowboy to prepare these despised growths for consumption by their cattle. Nothing but the craving of extreme hunger can induce cattle to eat such a plant, and they can not eat the prickly pear with any degree of safety until the pricks or needles, otherwise "stickers," that grow isolated and in clusters on the plant, are rendered harmless. Unless treated in some way that will destroy their power for harm, these stickers will work into the gums, throats, and stomachs of the cattle and cause ulcerations likely to terminate fatally. They are made harmless by singeing the plants in a blaze from burning brush or from broom-weeds, a method that is fairly successful in destroying them. The cattlemen sent their cowboys out, armed with pitchforks or with long, sharpened sticks, to gather and singe heaps of prickly pears, and the desperate cattle soon learned to eat this miserable and poverty-stricken stuff with avidity. Droves of the half-wild and more than half-starved creatures followed the pear-gatherers and scrambled and fought for mouthfuls of the wretched food that they could not have been forced to touch under ordinary circumstances. Men having small bunches of cattle usually hauled the pears regularly to some particular places and singed them there, a task that some of them performed every day throughout the winter. Their cattle soon became accustomed to being fed at these places, and those that did not drop out and die while going to or coming from the watering-places, would gather at these singeing stations and wait impatiently for their scant rations of this last of all possible provender.

But after the Texans had more generally occupied the vast southwestern, western, and northern range regions of their State, they frequently came into collision with conditions that resulted in tragedies among their cattle that were more heart-sickening than any they had known in all former times. Some of these were due to drouth, others to winter rigors that swept down from the north, and still others to a combination of the effects of both. In the earlier period of the occupation of these parts of the Texas range by cattlemen, out few attempts were made to grow feed-stuff of any kind or to cut and stack prairie hay for emergencies, and it was by no means practicable to haul cattle-feed from points hundred of miles distant across the plains. In seasons of great dearth, most of the saddle-horses and all of those that were in daily use had to be given at least a small ration of grain each day, and much of the corn and oats used for this purpose on most of the ranches in these distant parts of Texas, had to be hauled in wagons from Fort Worth.

Distressing examples of the magnitude of the losses to which the Texans were subjected in the newer parts of their State were those of the winter of 1884-'85 and the summer of 1885, when their cattle perished in numbers that aggregated hordes. The summer of 1884 had been much like that of 1879, and the effects over large areas of the grazing region of the State also had been much the same. The "Great Boom" had, as we have related, resulted in overstocking, really crowding, the pastures in every part of the range country from the Rio Grande to the headwaters of the Missouri, and Texas literally swarmed with cattle.

In some parts of western and northern Texas there was nowhere sufficient grass to support until spring all of the stock that was on those ranges, and water was scarce. Therefore, many of the stockmen in these sections of the State decided to let much of their cattle drift southward and across to the Pecos River and Devil's River country, where the herds could find some shelter from winter storms and probably be able to rustle out a living; and soon great droves began making their way across the divide that was waterless and next to barren in consequence of the previous season's dryness. Some of the herds were caught by blizzards and rolled along with them; with practically nothing to eat, and pelted with sleet and decked with snow by the pitiless storms that howled around them. The entire way, that was miles in breadth, literally was strewn with the bodies of cattle that had succumbed to the terrible hardships of the journey; and no one could do better than guess at the number of thousands represented by the carcases that littered the country over which these herds passed. The mortality was like that in Napoleon's army on its retreat from Moscow.

This southward movement was a very heavy one, a large majority of the cattle in some districts in the northerly parts of the State having participated in it; but estimates of the total number were, like those of the number that had died, mere guess-work. In the spring of 1885 an organization of men was sent to the Pecos River country to gather up the survivors and drive them back northward to their home ranges, which probably was the largest round-up proposition ever undertaken anywhere; and before the entire job had been finished it turned out to be as hard as cattlemen ever had to do. Some of the home ranges were upward of 300 miles to the north, and between all of them and the Pecos was spread out the land of death, over which the herds had passed the preceding winter.

The summer of 1885 was one of exceedingly severe drouth over a large region in western Texas, and it continued with but little abatement until late in the summer of the next year. Early in June there was a rather general rainfall, but from that time until about the middle of August of 1886 there hardly was a respectable shower anywhere in that part of the State. By the time the Pecos round-up organization had reached the scenes of its labors and made a start the effects of the early June rain had been offset by excessive heat that had followed, and the drouth was on.

In that summer thousands of the cattle that had drifted into the country died of starvation, or from drinking putrid water, or from miring in the holes that held what was left of the foul stuff. Many of the weakened creatures lost their lives in the channel of the Pecos by getting caught in quicksands or stuck in boggy places. One account of these disasters says, perhaps extravagantly, that some reaches of the Pecos in that summer contained seething "masses of horns and carcasses, revolting messes of carrion and ruin, gliding onward to the gulf"; and that over the country for miles upon miles the air was heavy with offensive odors from the multi-

Lost on the Prairie.

tude of decaying bodies of cattle with which the land was strewn. The mortality among the mother cows was exceptionally great, and until their helpless offspring perished from hunger, the dismal effects of the scenes and conditions in the country were made more depressing by the presence of many bleating, starving, motherless calves.

By the time that the first drive had been made ready to move northward the sparse young vegetation in the land ahead was blighted and withered, and among it there was scarcely a green thing of any kind. The suffering and losses of the cattle in making the journey through the Staked Plain country under such circumstances were shocking, and the northerly course they had to take from the locality of the round-up was much longer than the general east-and-west distance across the Plain. The following, taken from an account of the first drive from this round-up on the Pecos by one of the men who took part in it, very vividly sets forth the difficulties, trials, hardships, and awful distress and fatalities of the pilgrimage, and holds up before us another picture of the dreaded experiences of cattlemen in that part of the country in the times before the windmill had changed the worst of its conditions:

"As a result of the first day's work we gathered nearly 8,000 head of cattle, and a detachment of men was assigned to drive, or rather to drift, them back, for there could really be no system in handling such an unwieldly number; and the round-up continued, working through different sections along the Pecos River, and sending similar expeditions northward each day. With this particular herd our objective point was the head of Bull Run, about 125 miles north of where we were on the Pecos and about sixty miles south of the Concho, and where, it was thought, we could get enough water for the horses and to replenish our own supply, though the cattle must suffer until they reached the Concho, for Bull Run was nothing more than a little seep-spring tributary of the Concho, and during the most favorable seasons afforded only a few little pools of water near its head. As soon as we got the cattle headed north and well under way they began to string out, the stronger ones taking the lead and the weaker ones falling back and forming what we call the 'drag'; and in this manner the herd soon became strung out a very great distance, yet it was one continuous herd—a great string of cattle. By pushing the cattle every hour, day and night, it would take about seventy hours to reach Bull Run, and about forty more to reach the Concho. Just grasp, if you can, the enormity of this undertaking!

"The weather was fearfully hot, the ground parched and barren, and as the herd moved along, a cloud of dust arose that seemed to reach the sky and envelope the earth. It was but a few hours until the cattle and horses were suffering from thirst, a condition which, of course, continued to grow worse, for soon the men as well as the animals were paying tributes of misery to the desert of dust. When we started, our supplies consisted of enough provisions to last for the trip and as many barrels of water as could be loaded onto the three wagons. The horses were given small allowances of this water, and it was issued to the men with the greatest of economy; but notwithstanding all these precautions, before reaching Bull Run most of the barrels had fallen to staves, and there was scarcely enough water left to dampen our parched lips.

"The whole way was lined with cattle that had grown too weak and famished to travel farther and which had to be left to die on that miserable waste. The suffering of the cattle, especially the drags, was awful. They reeled and shambled as they walked, their eyes became sunken, and they kept up an incessant half-choked lowing which ceased only when their tongues and throats became so swollen they could not utter a sound. On this drive we would frequently come to a mesquite bush, or to a bunch of stunted elms. The cattle would smell the leaves and break for them, and soon around the spot there would be a milling, struggling, scrambling mass of the crazy creatures. If it were a bush, not a vestige of it would remain, and if a small tree, it would be twisted to threads by the awful jam and stripped of every particle of twigs and foliage. On reaching Bull Run we saw a sight too revolting for detailed description. Not only had the lead of our herd preceded us several hours, but cattle had drifted there from all parts of the country. For a distance of a mile, which was as far as the water was traceable, there were more than 2,000 carcasses over which perhaps 10,000 famished cattle were scrambling for a sip of muddy filth. While a few of the men tried to arrange some kind of drinking-place for the horses, the rest selected a place and dug a hole in which to catch some seep-water for our own use. Around this hole we formed a circle to fight the cattle back and keep them from plunging into it. We succeeded in getting enough of this muddy, stenchy stuff to answer our purpose, but it was so filthy that the only way we could use it was by making it into tea; and we even had to boil it to wash with. When water gets so rotten that a cow-puncher, used to drinking without hesitancy from prairie pools and mud-holes, has to adopt such methods, it is about as bad as language can describe or mind conceive."

These men succeeded in getting through to the Concho, but about one-third of the cattle with which they had started had been left behind, their bodies being strewn along the trail all the way back almost to within sight of the Pecos; most of the survivors consisting of full-grown steers, the awful hardships of the trip having been more disastrous to the cows and to the younger animals of both sexes. But many of the living ones had plenty of further trouble in store for them, for when they reached their home ranges the conditions due to the very severe drouth took a quota of victims from their decimated ranks to swell still more the great drouth-losses that occurred in western Texas during the season.

The fearful winter of 1886–'87 will live in the history of the range-cattle industry as the most destructive season that western stockmen ever knew and as long as life lasts will not be forgotten by those who had personal experience with it. It caused the greatest die-up among range cattle ever known anywhere. It was cruelly severe all over the range country and far beyond. There were repeated blizzards, heavy falls of snow, extreme cold, and blood-chilling rains. These combined to kill off about one-half of all the cattle on the northern ranges, and were almost as destructive down to those of central Texas. In many instances entire herds were almost completely wiped out. From northern Montana to southern Texas the pasture-lands were littered with the bodies of dead cattle, and from east to west every section of the stock-raising empire shared in the misfortunes of that terrible winter.

It was the old story as to preceding conditions. A bad summer and impoverished pastures; too much stock on the eaten-down grass-lands, and therefore hordes of thinned cattle everywhere that had to try conclusions with a winter of horrors. Soon after the winter opened —or, to be more exact, closed down on everything—the grass that remained was covered by a thick blanket of snow, and this, in turn, by a heavy coat of ice. Then the blizzards came, and between these the range country was drenched by cold rains or swept by gales that seemed to have come direct and at great speed from the North Pole. Perhaps the reader can imagine the situation of stockmen and their animals under such conditions.

The worst of these were in the northern country that swarmed with bands of starving cattle, stiffly wandering from one temporary place of refuge to another, on legs that were partly frozen, and by the ice-coat of the snow stripped of hair to the knees, their ranks fast being thinned by the dropping out of those that could go no farther. Others had drifted with blizzards and left their carcases as far to the southward as they had lived to go. Over large areas of Montana, western Dakota (then a Territory embracing the present two Dakota States), and Wyoming, the rigors of that winter killed above 50 per cent of all the cattle, and in some parts the mortality ran as high as 75, 80 and even 95 per cent. These awful losses of animal life were represented by carrion and bones that were scattered far over the open country and that lay in heaps in the unavailing havens.

Theodore Roosevelt, writing in the autumn of 1886 ("Ranch Life and the Hunting Trail"), foresaw the coming of such a calamity as this upon his fellow-stockmen, for at that time he said:

"Over-stocking may cause little or no harm for two or three years, but sooner or later there comes a winter which means ruin to the ranches that have too many cattle on them; and in our country, which is even now getting crowded, it is merely a question of time as to when a winter will come that will understock the ranges by the summary process of killing off about half of all the cattle throughout the northwest."

But it turned out to be a question of a very short time, for in the following winter Mr. Roosevelt's prediction was more than fulfilled.

In that remorseless winter as many of the desperate cattle as could get in, crowded into abandoned cabins and even into dug-outs and stayed there until they died. It would seem that to find some protection from the elements was not the principal motive that led them to do this, the probable stronger one arising from their association of such structures with the presence of man, upon whom they felt themselves so greatly dependent, especially in times of sore emergency. This was seen in frequent instances in which bands of starving cattle gathered around ranch-houses, bellowing and bawling and crowding up to the windows and glaring in, in appeal to the inmates for help, which the latter were powerless to provide. As the distracted creatures never had been fed at the ranch-buildings and had had no experience with such structures as places of shelter, it appears that their instincts led them to believe that their human masters could and ought to do something for them in the great straits in which they found themselves.

As in previous severe winters in the North, the heavier losses in that of 1886-'87 were among the herds that had been driven into the country late in the preceding summer and in the autumn, and had not had enough time in which to recover in condition from the effects of their long tramps; cattle that had been there a year or more and so had had winter seasoning, being better prepared to endure the privations, although many thousands of such cattle helped to swell the great death-roll of that remarkably severe winter. Cows in calf were the most common proportionately among all of the victims, and then in turn came the calves of the previous spring that were approaching yearlinghood and next the bulls—although a reader not familiar with the circumstances of such die-ups hardly would suppose this to have been the case. Mature steers and cows not in calf constituted in order as named the bulk of the survivors. Some acclimated range-raised common steers of that period could stand almost anything in the way of hardship, and there were cowboys who firmly believed that they had in their herds a few extra-tough individuals of this class that nothing outside of the shambles of the packing-houses could kill; and that there would be uncommonly lively times even there before these hardened customers could be made to submit to their fate—which usually proved true.

Our cattle rarely if ever will face a storm. They turn tail even to one of driven rain. This characteristic contributed largely to the mortality among range-cattle in blizzard weather. The buffalos, taking the storms in their faces, never hesitated about moving against the worst of those of winter if their instincts prompted them to do so. When beset by a blizzard both species of animals would take shelter from the blasts in some ravine or cañon, or in the lee of a bluff or clump of wood-growth, or in timber, if any such refuge were at hand; if not, the buffalos would seek a shelter, moving in any direction in which their instincts or knowledge of the country might guide them; but the cattle, having less self-reliance and less wit for finding shelter, invariably drifted with the storm until they came upon some place of refuge, or until the storm abated, or until they became so exhausted that they fell and died.

Usually in prolonged winter storms, cattle would seem to have become bewildered and discouraged by the hardships of their situation within the first twenty-four hours and to lose almost entirely their sense of self-preservation. When, under such conditions as these, they encounted an obstacle over or through which they could not pass, they made no attempt to turn against the storm even when they might have done so, and to try to find some other way out, but they bunched up in helplessness and stood there until they dropped in their tracks to die. After the introduction of wire fences into the range country these became barriers along which many thousands of storm-beaten drifting cattle halted and perished; and steep embankments of railroads, up and over which the weakened and discouraged creatures could not clamber, or in their despair would not try, became lined with the bones of thousands that had beaten against them.

Before the year 1886 many large ranges had been enclosed with strongly-built wire fences that extended long distances; for it is to be remembered that the range of a "large" outfit then might have meant land enough to make anywhere from one to three or four counties of ordinary size, or even more—and in some sections of the western cattle country we still have enclosed cattle-ranges that are far greater in area than the average county in most of the older States. During the rigorous winter of 1886–'87 line-fences were the secondary causes of many of the more distressing of these tragedies of the range, as they were in other winters.

Drifting cattle that perhaps had been driven along for a day and a night, with blinding sleet pelting them and sheets of snow swirling around and upon them, while marrow-chilling winds howled and moaned above their heads, finally came to a fence. Halting in bewilderment, some of them might move this way or that over a distance of several hundred yards looking for a place to get through. But as those behind crowded up there was confusion and still more bewilderment among the distracted creatures that were suffering intensely from cold, hunger, and exhaustion, and as long as they could keep on their legs, they wandered back and forth along the fence. Probably the leg-flesh of many of them was frozen to the bone, and when these were capsized by a shove from others or stumbled and fell, their stiff-frozen legs prevented them getting on their feet again. As at a railway embankment or some other obstacle of similar character, the wire fence caused heaps of carrion and bones to be piled up against it.

Sometimes the jam at a fence would displace the posts, and the bending over of the structure would lower the higher strands of wire sufficiently to make a passage possible. But the wires would not part, and some of the leaders through the gap were tripped by them or got their legs entangled and were thrown. The crush from behind forced those in front to trample over the prostrate ones, and then more would fall; and soon there was a mass of struggling and dying creatures in and near the opening.

A fugitive account of blizzard die-ups in Texas tells of a herd of cattle that passed a fence by clambering upon a heap of dead and dying of its own number. Many of the cattle had sunk down close by the obstruction, their bodies being near to or in contact with each other. The sleet and snow packed in and upon them. Others fell upon these and in turn were covered with sleet and snow. This piling up went on until, according to the story, there was a ridge of dead close to the fence and nearly as high as the upper wire. The snow and sleet packed between and upon them until the whole became a mass. The survivors clambered upon this ridge and tumbled over the fence. Some broke their necks by the fall; others, less fortunate, broke a leg and hobbled around until death brought them relief. The rest drifted away.

The Range Rider.

The years and seasons to which we have referred on these pages were those in which the elements produced harsh conditions that caused exceptionally great losses, but there were others in which the mortality was most distressing from both the humanitarian and the financial points of view, in various parts of the range country, and in some localities the death ratio equalled the worst that we have mentioned. For example, in sections of western Texas late in March, 1890, after a comparatively mild winter and after the spring had opened most promisingly, a furious blizzard swept over that country and left the dead bodies of many thousands of cattle in cañons, ravines, and creek-beds and many other thousands on the open prairie. In the winter of 1893–'94 there was a great destruction of cattle-life in many parts of the range country, and in certain sections of western Texas the losses were equal in ratio to the greatest ever known there. However, over the plains cattle-country generally, the mortality in that winter fell far short of that of the memorable winter of 1886–'87. It was the old story: A combination of the effects of a dry preceding summer and of those of a hard winter of heavy snowfalls and frequent blizzards. One Texan writer says that the conditions in some sections of the western part of his State early in the spring of 1894 "simply beggared description." The line-fence tragedies had been repeated in many places, and in cañons, in and along the creek-beds, and around the water-holes, the land was strewn with decaying carcases, and the air was polluted with odors arising from the bodies of dead cattle. This company had put 3,000 head on pasture in the previous autumn, and of these less than 500 were left in the spring of 1894; that cattlemen had started into the winter with over 7,000 head and in the spring had rounded up only about 600; another had an especially fine small herd of 700 three-year-olds steers, of which only seventy-five or eighty were living at the end of the winter; and so on and on. Elsewhere in the range country the consequences had been much the same in kind, but less disastrous in degree than in these parts of Texas.

Since the range-stock industry was extended over the great plateau region in the West, drouths alone have brought seasons of grave misfortune to range-stockmen. Before the Civil War, when the range-cattle business by Americans was confined to the eastern and the southern parts of Texas, there were several seasons of drouth in that State that would have caused heavy losses had the cattle been upon its higher and drier sections in the western and northern parts. But it does not appear that the *ante bellum* Texas cattlemen ever were seriously affected at large by these dry seasons.

But during the Civil-War period our Texas friends were not so fortunate. Then, as the reader has already learned, there was a series of parched seasons, in which most of the streams ran dry, and the life was burned out of the pastures. To a large extent, in many parts of Texas in that period, cattle were neglected; many herds being abandoned and left to roam at will over the range. It was roughly estimated that between 40 and 50 per cent. of the cattle in the general region west, southwest, and south from Austin, perished in the war-years in consequence of conditions due to successive drouths; and in some parts of this region the mortality was as high as 75 per cent. over large districts.

While lack of pasturage kept the animals in much distress, thirst was the general immediate cause of death. In an old account of the circumstances that attended these die-ups which came to the notice of the present writer, it is said that many of the cattle, especially the bulls and steers, "went crazy" and behaved like violent human maniacs, fighting each other furiously; that sometimes an individual, far away by himself, suddenly began to plunge around, making vicious sweeps and lunges with his horns, and otherwise acting as if he were in deadly combat with a powerful antagonist, and at other times he would attack a tree or a bush, or frantically horn the earth. In these crazy assaults some of the maddened creatures broke off one or both horns, and then went staggering around with the thick, dark blood running down over their faces and jaws, lowly muttering and moaning in weakened voice, and presenting hideous aspects as they glared from their sunken eyes at objects near them. The recorder of these strange circumstances was at pains to explain that these crazy beasts had not been "locoed"; that is, their behavior was not due to having eaten of the poisonous "loco weed," but resulted from the anguish of thirst.

Since the war there have been many dry years in the southern country that decimated the herds of cattle and some that wrought wholesale destruction among them. A general drouth is a fearful thing in the high and dry range country, and the southern districts have had some that laid out myriads of horned beasts. Vegetation withers and the water dries away. Running streams become a series of stagnant pools, and water-holes that were fed by springs that have ceased to flow are changed into quagmires.

In times past at such places, gathered not only the cattle of the range, but the wild creatures of the country, famishing for water. They sucked up the foul and poisonous fluid that remained, and died there by hundreds. The weakened cattle became stuck in the quagmires and in the quicksands of the pools that represented former running streams, and struggled until they perished. This went on over a wide expanse of country, involving thousands upon thousands of dumb and helpless creatures. No one could tell how many thousands; nor could the destruction be prevented. It went on in lesser degree in ordinarily "dry" seasons and aggregated enormous losses. In such years these losses received scant attention. The stockmen expected them and said little or nothing about them. In the presence of such conditions usually they were as helpless to save as their cattle were to save themselves. Sometimes herds could be taken into another part of the country, but as nearly every part had its own cattle to provide for, this could not be generally done.

Range-stockmen have been paying tribute to bogs and quicksands ever since they began their business. They pay these tributes everywhere and in every year and every season of the year. Among the ordinary, every-day dangers to range-cattle there is none that causes more deaths than miring in quicksands and in mud-holes. Thirsty cattle rush recklessly into a stream where there are treacherous sands and before they know it sink beyond their power to extricate themselves, or get into a bog. In either case, if no cowboy be at hand to help them with his rope and horse, they flounder as long as they can and then give up in dumb despair. The worst of all these places is an "alkali-hole." A cow or steer caught in the sticky mass of one of these holes must be helped out quickly, or its case is hopeless.

Well informed live-stock men know that winter conditions have been more destructive of live stock in the central and northern parts of the range country than the drouths of summer. Generally speaking, these are better watered, according to area, than the southern parts, and the sources of the streams' supply usually are more productive and regular in their action. The central and northern sections have had "dry" years and some of actual drouth, when pastures were burned out by the sun. But the seasons in which any large ratio of their cattle died from thirst have not been many.

In the live-stock tragedies of the range country, sheep also have figured, but nowhere near so conspicuously as cattle. When the land was swept by a blizzard of deadly fierceness, or when the pastures were sealed under ice-coated snow a flock of sheep stood a far better chance than a herd of cattle. In such an emergency it was safer, by five or six to one, to "bet" upon the survival of a sheep than upon that of a range steer. In such a time of trouble the instincts that sheep have inherited from their far-off mountaineering ancestry served them to good purpose. In the first place they did not wear themselves out by drifting with the storm. Then in lean seasons they could keep themselves in relatively better physical condition than the larger animals. A sheep can pick up a fair living almost anywhere. When a blizzard swooped down upon a flock, the animals did not become bewildered; they huddled close together, usually laying down in a compact bunch with their legs drawn under them and their heads protected by each other's bodies. Their thick, woolly coats "kept out" the cold, and if the snow covered the bunch, all the better, provided that this covering did not become too deep. Bunched up and blanketed in this manner, the sheep passed through ordeals that were killing thousands of cattle.

Still the flocks have contributed a share to the demands made by the unfriendly forces of Nature upon the range stockmen. Many sheep have perished in the extremities of winter weather in the range country, and the plains sheepmen have not escaped ruinous losses. Flocks that took shelter under cut-banks or in the lee of a hill or cliff were buried so deep under the mass of snow that was whirled in upon them that they were smothered. This has been the common form of death to sheep on the ranges of the West in blizzard weather and in times of heavy falls of snow that were driven by ordinary winds. However, sheep have been known to survive for many hours, even for days, when buried so deep under snow that they could not help themselves, but had to be dug out with shovels by their keepers.

In times of drouth, sheep fare better than cattle. Although the pastures may be "burned out" to a degree that means starvation for cattle, the smaller creatures usually can manage to get along. They can also better endure the consequences of scarcity of water, and compared with cattle, they are at no time heavy drinkers. In an earlier part of this volume we have mentioned the fact that some varieties of sheep in France have almost abandoned the habit of drinking, depending chiefly upon the juices of the rough herbage on which they feed to supply their bodies with moisture. Yet the years of drouth in the West have not exempted the flocks from serious losses in the drier parts of the country. Furthermore, rough weather in the lambing season takes a tribute from the young of the flocks to which those of the cattle are not often subjected.

But the provident methods that now generally characterize the management of stock ranches in the grazing country in the West, have interposed many safeguards against recurrences of such tragedies as we have had under consideration on these pages. Since the winter of 1893–'94 there have been no serious general die-ups, although the winter 1898–'99 was rather severe in most parts of the cattle country, and several of the summers were such as would be classed as dry. In New Mexico and Arizona the summer of 1904 was a dry one, and in some parts of the last-named Territory water became so scarce that a large number of cattle died from thirst and many others from over-drinking when they had reached the larger streams that still were flowing; and some sheep-raisers were compelled to kill their lambs in order to give their ewes a better chance to survive. But, taking the range country at large, the general introduction of windmills that pump water from bored or driven wells, has to a great degree removed in many sections of the country the danger of live stock suffering and dying from thirst in times when surface supplies have failed; although, as in the Arizona instance just mentioned, drouths have not ceased to be a menace to range live stock. The fences of the generally smaller establishments of our times prevent the drifting of cattle in large bodies and for long distances when beset by winter storms; and the radical change in the character of range-cattle has bettered the situation. The present common practice of curing and storage of food for winter emergencies is another provision against disaster in the cold season—one of the important duties of the present-time cowboy being that of running a mowing machine in the hay-making season.

Judging by the great strides of the last decade in humane care and treatment of live stock, the time is not far distant when range losses will be merely nominal. The reduction in size of the ranches, and the improvement in the quality of the flocks and herds are evidences of the truth of this assertion.

Joseph P. Morris.

The Morris Ranch, of Coleman County, Texas, is known as one of the most desirable ranches in West Texas. Located in a farming region, and watered by generous streams and perennial springs, the spot early attracted the attention of cowmen, and was a favorite range for the Texas Long-horns. Under direction of Joseph P. Morris, the former cattle range has assumed the garb of civilization. Farms and pastures are now to be seen where once was the open prairie, and agriculture and stock-raising are carried on upon a scale that gladdens the heart of the visitor and points to yet greater achievements in the years to come.

The Morris Ranch is an object lesson of gratifying significance, for it is a practical exemplification of the application of thorough business methods to two kindred branches of industry that under wise management go hand in hand.

Mr. Morris is a large cattle-raiser and an intelligent farmer, and as a banker and man of business judgment in any branch that attracts his interest, he has scored a pronounced success. He is a native Texan, and is a staunch believer in the magnificent resources and possibilities of the State. He belongs to the class of men who move things—the class that subdued the wilderness and that directs the successful business affairs. It is a class that has made civilization. To men of this stamp the world owes its greatest victories, and he who is so fortunate as to become by natural adoption a member of this brotherhood, becomes a very master among men.

Coleman County, which became the theater of operations of Mr. Morris twenty years ago, is one of the favored counties of Texas. As a cattleman from inclination and experience, Mr. Morris was attracted to the Coleman County range on account of its richness, and having located himself upon a splendid tract of land as a nucleus, he added to his original location from year to year until the ranch embraces an area of more than 50,000 acres, extending twelve or fifteen miles north and south, and including about every variety of soil that the live-stock raiser or agriculturist may desire. With a constant willingness to learn from results secured by others, Mr. Morris has adapted himself to the changing conditions of the range. He is a believer in the theory that a producer should always be in the market and that he should place a price upon his products that will keep them moving. He is a consistent advocate of improving the cattle-herd, and his herd has been steadily graded up until it is one of the attractive herds of West Texas.

The cattle business early claimed the interest of Mr. Morris, and he has passed through all the experiences necessary to produce the full-fledged cowman. On the trail, in contact with pioneer cattlemen, he learned many useful lessons, and his knowledge of the breeding, feeding, and marketing of cattle covers every detail of this important field. It is a work that requires many years of patient application, often in the face of great difficulties, but the man who has learned the business has one of the most interesting occupations that is known to the human mind. It is an occupation that broadens the intellect and makes the all-round man. This is shown in the characters of the men who are the leaders in the live-stock world. The oftener one comes into contact with these men the greater his appreciation of them. It is doubtful if their superiors in overcoming obstacles are to be met with in any other branch of business. It is the thrift, industry, and perseverance of the live-stock man that led to the packing-house, to the construction of many lines of railroad, and to the establishment of a world-wide market for the meat products of America. The industry has made its way into almost every channel of modern activity, and is one of the leading forces in the vastly increasing commerce of the world. The live-stock business may justly be designated by its supporters and friends as a mighty agency in the progress of civilization.

The parents of Mr. Morris landed at Indianola, on the gulf coast of Texas, in 1845. Texas as a republic offered a grant of 1,240 acres of land to immigrants who were heads of families, and Augustus Morris and his wife accepted the invitation. The Republic of Texas was rich beyond imagination in lands and future prospects, but poor in number of inhabitants. The eastern counties of the republic were thinly settled, and Western Texas was almost unexplored territory. The Morrises came from the border-line of France and Germany, and were attracted to Texas in a movement which brought to Texas a large German element, whose descendants form at the present time many of the most prosperous communities of the State. Mr. Morris located in De Witt County, on the east side of the Guadaloupe River, and in a few years was established as a farmer and stock-raiser. Here Joseph was born, and here, in the primitive surroundings of a frontier settlement he grew up and gained his education by contact with the world.

The early settlers of Southern Texas were hard-working people. They had little acquaintance with the elegancies of life as they were on the frontier, and in many instances life was a stern battle for existence. The last Indian raid into the De Witt County region was in 1848. The frontier was being slowly pushed farther north, but Indianola, near the mouth of the Guadaloupe River, was the principal supply point. This town was swept out of existence by a great wave from the bay thirty years ago, and no mark remains to designate the spot that was for many years an important gulf port.

In the early days of De Witt County, the settlers had no wheat-flour except a meager supply that was occasionally hauled by ox teams from Indianola, and they subsisted mainly on meat and corn-bread. The corn was ground by hand in steel mills, much like the family coffee mill of the present, and the meat was often the wild game which abounded along the streams and on the prairie. The settlers in their little log cabins were bound together by a common interest—that of self-protection—and strangers traveling through the country were welcome at the camps or at the homes of the pioneers, as the principal means of communication from the outside world was through travelers. Deer and antelope roamed in the country, and the wild mustangs gave so much annoyance by enticing horses of settlers to the range, that thousands of them were shot. One method of capturing the mustang colts in the early days was to give chase on horseback to a herd of mustangs. The colts would finally fall behind, and after their mothers were driven away, the colts would follow the tame horses into the settlement. It was customary for the colt-hunters to carry sugar in their pockets for sweetening water which was given the colts to drink, the attractive powers of the sugar proving altogether too strong to be resisted. The only horses of many of the settlers were from colts thus captured.

The cattle of the country were the typical Longhorns, and the principal money supply was from sale of range cattle, which were shipped by steamboat from Indianola to New Orleans. Fat, grass-fed steers, as remembered by Mr. Morris, brought $12.00 to $16.00 a head, and as there were no taxes, and free grass was the only grass recognized by cowmen, the expense of rearing the big, South Texas four-year-olds was a bagatelle compared with the outlay required for the high-bred cattle of to-day. The settlers were industrious and honest, and were happy in their simple surroundings, as they patiently awaited a brighter day.

Under these circumstances the youth of Mr. Morris was passed. He was born January 12, 1849, and made his home principally in De Witt County, until 1884, when he began ranching in Coleman County. Mr. Morris was too young to take part in the Civil War, although his assistance was actively required on the ranch. From his youth his greatest interest was in cattle. He traveled with the "outfit," went cow-hunting as soon as he was able to ride, assisted in the round-up and the calf-branding, and made many trips into the surrounding country with cattle herds. He was perfectly at home in the saddle. Being a close and accurate observer, he learned his duties so well that he soon began to depend upon his own judgment—a most important step in the business success of any young man. He became a good judge of cattle, and when he went upon the long trail to the North he met with none of the mishaps that ruined the fortunes of men older than himself in the trail movement. Fifteen years in the cow camp prepared him for the responsibility of leading the great trail-herd.

The heart of the trailman throbs with excitement as his mind carries him back to the days of the trail. Again he sees the long line of steers stretching for miles across the plain; the great horned leaders in the van; a suffocating cloud of dust obscuring the vision on one side of the trail; the swarthy drovers, alert and armed for possible Indian attack, on either flank; the caviyard and "chuck" wagon well forward on the way to the next camping spot. The camp-fire, the early morning round-up, the start, the novel sensations amidst strange surroundings, again crowd upon the mind, and the trailman is young again and living anew the experiences of thirty years ago. To many men the cattle-trail presented the most romantic and interesting phase of frontier life.

Mr. Morris was a natural trailman, and his reminiscences of those stirring scenes possess the true flavor of the range. He made money upon the trail, and was one of the first men to conduct a herd of Texas cattle into the Black Hills of Dakota. In 1879 he started from De Witt County in charge of a herd of 3,014 cattle, four-year-olds—all big steers. It was one of the largest and best herds of South Texas cattle that was ever sent over the trail, and the trip to Dakota was performed without accident.

In speaking of this experience, Mr. Morris said: "It required five months to make the round trip, and it is one of the pleasant recollections of my life. There were nine men in the party, not including the cook and horse-tender. We started on the 16th of February from South Texas, and followed the grass north. We were not troubled with a single stampede during the trip. At that time six railway lines crossed the cattle-trail—the Southern Pacific, the International & Great Northern, the Texas & Pacific, the Santa Fé, the Central Pacific, and the Union Pacific. The Texas & Pacific Railway had just been completed to Fort Worth, and the world was just beginning to catch a gleam of the possibilities of settlement in the immense area from which the buffalo had been driven, and which was the home of countless thousands of cattle. The final count when the herd was turned over in Dakota, to J. T. Taylor, of Austin, showed only fourteen cattle missing."

The route followed by Mr. Morris in his trip northward led from De Witt County through Gonzales, Lockhart, near Austin, through Belton, Fort Worth—then a village with one railroad—crossing Red River near the mouth of Salt Creek, past Crawford, through Fort Dodge, across the Platte River at Ogalalla, and along the North Platte River to Sidney Bridge, thence to Hat Creek, thence to the Missouri River and the Red Cloud Agency, where 12,000 Indians were being fed by the Government. The crossing of the Platte River was one of the most dangerous experiences Mr. Morris met with on the trail. The Platte is a treacherous stream, and when the herd reached the south bank a great flood was rushing from the mountains, and the banks were almost full of water. Mr. Morris always "pointed up" his herd in good order before approaching a stream, and in this instance the time of delivery to the purchasers of the herd was drawing near and admitted of no delay. The herd was put into the water and safely reached a sand-bar near the middle of the river. Here a grave difficulty was presented. The cattle refused to undertake 1,100 yards of chilly water that lay between the sand-bar and the opposite shore. For eleven hours the herd sullenly resisted every effort to move it forward. The flood showed no signs of diminishing, and men and horses were almost exhausted. In a few hours the cattle would begin to succumb to exposure in the chilling water, and there was great danger of losing a large part of the herd.

In this extremity Mr. Morris decided to make use of a ruse, perhaps the only one that could have saved the herd. With great difficulty he cut out nine lead-steers and succeeded in inducing them to swim to a little island a short distance in the stream. This movement attracted the attention of other cattle of the main herd, and when the leaders again took to the water the herd followed, and the cattle safely reached the northern shore. The next day a large Texas herd following that of Mr. Morris was put into the stream, and 800 steers were lost.

Mr. Morris, on his return journey, stopped at Cheyenne, Wyoming, July 4th, where a Wild West celebration was in progress. One of the leading events of the day was a fire tournament, in which the Denver team carried off the honors and won a big prize. These contests between selected teams of fire departments for many years were exciting events in the history of Western towns, especially in mining camps of the Rocky Mountains.

In 1878, '79 and '80 Mr. Morris was each year upon the trail, and became personally acquainted with the leading trailmen, whom he regards as a remarkable body of men. Among the leaders of the movement as met by Mr. Morris were Captain J. T. Lytle, George West, Sam and Bill Moore, Captain Curran, the McCutcheons, the Bennetts, the Blockers, and Walcott. To be a successful trailman required good judgment, ability to command the respect of others, and a financial credit that was often tested to the extent of hundreds of thousands of dollars. The trailmen were the pioneers who opened the way for the great cattle market as it is witnessed to-day.

As far back as twenty-five years ago, Mr. Morris, then a successful cattleman of DeWitt County, began to perceive that the time was approaching when the cattle range would be occupied by settlers, and the cattleman who continued to depend upon the open range would awake some day to find his occupation gone. He decided to acquire a tract of land that would meet the exactions of modern demands, and the region of Coleman County claimed his attention. In the spring of 1884 he began locating in the northern part of the county, and three years later he took up his residence in the town of Coleman, where he has since lived—seven miles from the nearest line of his ranch. The altitude of this region is about 1,800 feet, and the annual rainfall ranges from twenty-five to thirty-five inches. The success of the farmer, through a series of years past, in Coleman County, is looked upon by Mr. Morris as convincing evidence that the county is among the permanent and prosperous agricultural counties of Texas, and this region is destined to be a very large producer of cotton as well as a large producer of alfalfa, corn, wheat, oats, rye, and the ordinary crops of Central Texas.

Mr. Morris has eight farms in successful operation in connection with his ranch, and has forty-five acres of alfalfa now growing, yielding four crops a year. With the application of flood-waters, which are available in natural basins in different parts of the county, he sees no limit to the possibilities of agriculture in Coleman County. Agricultural land is now selling at $10.00 or $15.00 an acre and a steady stream of farmers from other parts of Texas and from other States has set in toward Coleman County.

The ranch of Mr. Morris is watered by the Jim Ned, a large stream running the greater part of the year, Cow Creek, Indian Creek, Turtle Bayou, and Hog Creek, and a single tract of 3,000 acres in Cow Creek Valley present inducements for irrigation that cannot fail to be practically utilized. Upon this quality of bottom land Mr. Morris has raised as much as 115 bushels of oats and sixty-five bushels of corn to the acre, in favorable seasons. This is a remarkable but true statement concerning a region that a few years ago was pronounced as fit only for a grazing country.

In the course of his ranch operations Mr. Morris brands 1,200 calves yearly, and is a raiser of horses and hogs, although the cow is his favorite animal and will probably continue to be his favorite. The range man seldom deserts his first love, and there is a sentiment connected with the cattle business for born range men like Mr. Morris that forbids entering into any new allegiance. This sentiment, almost as much as the financial reward, is the incentive that carries the cowman through the fluctuations of his career.

Mr. Morris is among the fortunate ones who has passed through great depressions of the cattle business without loosing his moorings and being obliged to start in life over again. The slump of 1885 found him heavily encumbered, but through the kindness of his principal creditor, T. R. Lofton, of San Francisco, California, he passed the shoals in safety and anchored in a fair port. Mr. Lofton is now dead, but he will ever be held in grateful remembrance by one who recognized in his California financier a true friend.

As a banker, Mr. Morris occupies the position of vice-president of the First National Bank, and member of the board of directors of the Coleman National Bank, both of Coleman, and stockholder of the First National Bank of Yoakum, Texas. He is an advocate of the national banking system as compared with the State bank, and as a student of taxation is opposed to the income tax. He favors the tariff as a means of raising revenue.

"Free trade," said he, "is a delusion that cannot withstand a sound, practical argument. Take the cattle business as an illustration. Withdraw the tariff on cattle from Mexico, and where would the cattleman on this side of the line find himself? Here I am with 1,000 four-year-old steers. I have been paying taxes on these steers for four years. Across the line in Mexico are 1,000 steers as good as mine. They have never yielded a cent of income to our county, State, or Government. If they are admitted free of duty I must retire from the business. That is the tariff argument in a nut-shell."

Mr. Morris is interested in farms and ranches in De Witt and Crockett Counties, and while he regards Coleman County as one of the most favorable locations in West Texas, he sees great farming opportunities in Runnels, McCullough, and adjacent counties.

"What is cotton land worth an acre," said he, "if cotton is selling at eight or nine cents a pound? The income from the land is the basis upon which to estimate its value. If land produces one-half bale of cotton to the acre, and cotton is selling at six cents a pound, the land is worth $50.00 an acre. I have no doubt under such conditions as we have a right to expect, that farming land in Coleman County within five years will be selling at twice its present price, and it will not be a boom price. We know little as yet about the possibilities of this soil. Turning to the cattle industry, no man can prognosticate as to the price of cattle in the market. The price depends upon the will of the slaughterers; but it is evident that we have been raising too much meat in America, and we need a wider market. There are individuals and corporations in the United States that are making too much money, but these inequalities will be regulated in time. Land is at the present time the greatest investment known in America."

Speaking of the negro problem, Mr. Morris said he is in favor of giving the negro a common school education and colonizing him in the islands of the sea. "The negro," said he, "is intended by nature as a servant and a farmer. Give him a fair chance in life, and if it is possible to do so, locate him on some of the tropical islands our Government has recently acquired. The white man is a better laborer than the negro; the Mexican is a better laborer in the cotton-fields than the negro, and the supply of labor from Mexico is almost large enough to meet demands of the South. Test the negro and the Mexican at the same class of work, and it is always in favor of the Mexican. Once I gave a privilege to a negro to gather pecans in one mile of creek bottom. He gathered 500 bushels, and reported that his work was completed. I turned over the same trees to a Mexican, who followed the negro. He brought in 600 bushels of pecans. This is a fair illustration of the difference between the two classes of service. One is inclined to be shiftless and careless; the other is thirfty and watchful of the interest of his employer."

Thomas Hughes, one of the early cowmen of Gonzales County, gave Mr. Morris some of the most practical lessons he ever learned in the handling of cattle. The mother of Mr. Morris, however, is the one to whom he ascribes the principal credit for whatever success he has attained. She was a woman of unusual good sense and strength of character. Mrs. Morris lived to the advanced age of eighty-seven years, and died in 1902 in Lavaca County.

Mr. Morris has been twice married. He was first married to Miss Mattie Pincham in 1871. Six children survived the mother, who died in 1899—Mattie B., now Mrs. John B. Miller, Coleman County; Josephine, now Mrs. F. P. Cooper, Muskogee, Indian Territory; Mary I., now Mrs. Charles R. Sparks, New York; Claude A., twenty-five years of age, in charge of the ranch; Press D., and Wedia, attending school. Mr. and Mrs. Miller have two sons, John P. and Louis, prime favorites of their grandfather. The three married daughters of Mr. Morris all graduated at Baylor College, Belton, Texas, and his oldest son at St. Edward's School, Austin.

On April 14, 1904, Mr. Morris was united in marriage to Mrs. Bettie R. Lindsey, one of the most popular and accomplished women that Coleman has known; and a happier family is not to be found in the great State of Texas. Mr. Morris has experienced a fair share of life's varied experiences, but he regards the love of a true woman as the richest blessing that any man can possess—much to be prized above money.

In his opinion success is due to good judgment, not to great exertion of the body or the mind. His advice is to use more head and less muscle. The ideal business man, as he regards him, is one who keeps his head cool and is open to a change of conviction the moment the circumstances change. This is the man who grasps the opportunity.

The story of Mr. Morris' life is a great encouragement to young men. It is the truly courageous spirit, according to the philosophy of Mr. Morris, that overcomes all things and triumphantly attains the desired goal.

Pests of the Western Stock Ranges.

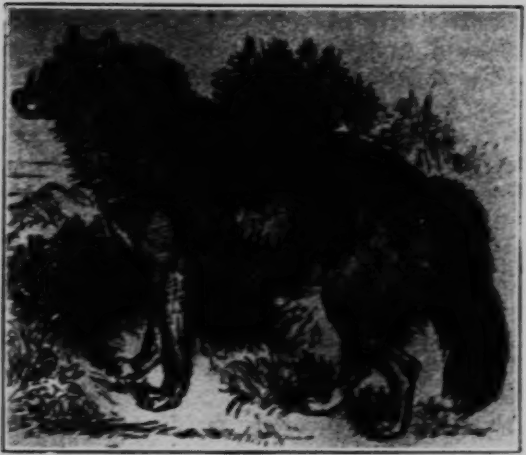
Nature's Considerateness.—Dangers to Stockmen.—Bears, Mountain Lions, and Wolves.—The Wolf Pest.—The Typical Wolf of North America.—Color, Size, and Characteristics of the Gray Wolf.—Number of Its Young.—The Wolf's Dismal Cry.—Habits and Cunning of the Animal.—Stockmen's Warfare Upon Wolves.—Lobo as a Hunter.—Wolf-Bounties and "Wolfers."—Crossing of Wolves with Dogs.—The Coyote.—Its Ranges, Character, and Insignificance.—Bears as Stock-Killers.—The Mountain Lion's Depredations.—Roping a Lion.—The Prairie-Dog.—Reasons Why He Is a Pest.—His Burrow and Its Consequences to Stock.—Extensive Range of the Prairie-Dog.—The Dog as a Destroyer of Pasturage.—Size of Prairie-Dog Towns and Number of the Animals.—The Dog and the Rattlesnake.—Various Species of Rattlesnakes in the West.—The "Rattle" and Its Formation.—Venom of the Rattlesnake.—The Skunk.—Cowboys' Fear of It.—Hydrophobia from Its Bite.—The Tarantula.—Its Charater and Habits.—A Defense of the Insect.—The Dreaded Centipede.—Future of These Pests of the Ranges.

While the elements sometimes have wrought havoc among live stock animals on the western ranges, Nature has been extremely considerate with respect to the number of their living enemies—of carnivorous creatures, capable of harming them—that she has permitted to live in that great land of plains, mountains, and river valleys. In no other part of the world has there been within historical times so vast an extent of country in which existed so few predatorycreatures to prey upon the useful and therefore the more worthy animals.

We shall find that the stockmen themselves—the herdsmen and the shepherds—relatively were in far more frequent and more serious danger from pests of the ranges than were the animals they had in their keeping. Yet that part of this great stock raising land that lies within the domain of our Nation, embraces between its southern and its northern limits about 19 degrees of latitude, and has an average width of something like 25 degrees of longitude. In so vast a region, in which climatic and other conditions are so varied, the number, as well as the variety, of large and truly predatory animals might reasonably have been expected to be greater. But this was not so, either in variety or number. Wolves were about the only carnivorous creatures which the herbivorous animals had much reason to fear. True, once in a while a bear mixed in, and the puma, or "mountain lion," more frequently did some mischief. But the bears had other and more agreeable ways of getting a living, and mountain lions never were very abundant. Moreover, these two species of animals seldom ventured out upon the plains where the horned tribes held sway, and they rarely went very far. In number, the wolves, in proportion to the extent of favorable country and to the quantity of living food for them that flourished in it, were not great at any time within our historical knowledge of the West. In the aggregate there were thousands upon thousands of wolves in early times, as there still is, though the present number is far, far below what it was thirty years ago. But considering the wolf population with relation to the square mile unit of territory, the conclusion that it always was a thin one is inevitable; and measured by the hordes of buffalos and other wild grass-eaters that the country once sustained, the wolf population certainly was very small.

The wolf, so far as the range stock was concerned, was the greatest pest of the country—the great gray wolf, otherwise known as the "timber wolf," the "buffalo wolf," the "loper wolf," the "loafer wolf," and the "lobo wolf." Among all American animals this is the meanest, the most despicable creature that lives. It is capable of any form of treachery and cruelty, and is the only one of our wild creatures that habitually eats its own dead and kills and devours its own wounded. It tolerates no pensioners. It will even fall upon the weaker uninjured of its kind and eat them. Yet, with all of its ferocity, it is a coward—a cruel, miserable, sneaking coward in the presence of other creatures capable of defending themselves when in a situation to do so. It will, when threatened by danger, gladly abandon its helpless young offspring to save its own carcase.

This is the typical wolf of North America. In different parts of the country it has been different in color, but not in character. In the West at the present time it ranges in diminishing number from Mexico over the plains and through the mountains to the northern boundary of our country, and thence on northward, over the Canadian Dominion and over Alaska to the frozen shores of the Arctic Ocean. But here we are concerned with it only as it exists and has existed in our western stock country. In the southern parts of the range country its color usually is brownish, and in the central and northern it varies from a dark gray that appears black on a snow-covered landscape, to nearly white—so nearly that it seems white on the brown and gray of snowless land. A well-developed lobo wolf of full size is usually above two feet in height at the shoulders, and has a body length of about four feet, good measure; and to this there is to be added about fifteen inches for the length of the tail, which appendage usually is carried somewhat elevated above the line of the back. In summer its coarse-haired coat is about as heavy as that of a straight-haired dog on the same size, but with the coming winter, the coat becomes long and shaggy.



The Gray Wolf.

The number of puppies in a litter ranges from four to seven, but more commonly it is five. These come into the world wearing a coat of blackish brown that soon changes to the characteristic color of their parents. During puppyhood they are much like the young of dogs, but as they emerge from that state of existence they rapidly develop the mean traits of their progenitors.

The cry of the lobo wolf is entirely unlike that made by any other living creature: it is a prolonged, deep, wailing howl, and perhaps the most dismal sound ever heard by human ear. Any one who has heard it when the land was covered with a blanket of snow and elusively lighted by shimmering moonlight, never will forget this strange, trembling wolf-cry that came to him through the cold and stillness of the dead of a winter night on the range.

Though a coward in the presence of its betters, the lobo really is a formidable animal. Of great strength for its size, its powerful jaws armed with large teeth enable it to inflict frightful wounds, and its cunning has become remarkably developed. It can endure the most extreme hardships of winter without discouragement, and seems not to know the meaning of the word "fatigue." In the chase it can keep up its loping gait mile after mile, and so the whole day through if needs be. Its experience with men has taught it to dread them and to give them a wide berth. It spends most of the daytime in its den in a cave or in some wash-out hole, or it may lie in hiding in a clump of bush. It is likely then to let a man pass by within a few feet without betraying its presence and without making any move to attack him. Indeed, men have literally stumbled upon the hiding lobo, and have had him spring away from almost under their feet. The experienced animal also has learned to fear and avoid certain of man's belongings—his rifle, his trap, and his poison. In recent years some remarkable stories about the lobo's shrewdness in dealing with traps and poison have appeared in books. These endow him with applied intelligence in such matters that compares very favorably with the wisdom of mankind. While the writers of these stories have not always depended upon ascertained facts, it is true that the elderly lobo is wonderfully cunning about the tricks of his arch enemy. He knows that poison is not good for him, that traps are uncomfortable things to wear, and that the man carries a tool with which he can bore a hole through a wolf at a long distance. Even though the poison be concealed in an attractive piece of meat, or the trap buried out of sight in the loose soil, the wolf very often knows, and passes on.

The gray wolves have hunted our domestic animals clear across the continent. They began on the pioneer cattle, sheep, and hogs that were landed at Jamestown in 1609, and from that year to this, have levied tribute in every stage of westward progress. From the beginning of the range stock business in the West, the stockmen, recognizing in these animals their most dangerous living enemies, have waged bitter, unrelenting war upon them, and it is chiefly to the efforts of the stockmen that the great reduction in the number of wolves in the West is due. Yet it will be many years before the gray wolf becomes an extinct creature in the western country. There are many mountainous parts and also other sections, such as the "bad lands," that will long continue to afford refuges and support for this gray marauder.

The Indians, the fur-traders, and other early-time men of the plains seldom molested the wolves. They were willing to leave them alone, if, in turn, the wolves would reciprocate by leaving *them* alone. So this arrangement ran on until the stockmen began to take possession of the wild country. These men would listen to no compromise, but declared war to the death, and ever since have kept it up.

The gray wolves have no particular established practice in their methods of hunting. Usually they are not seen in "packs." Often in the autumn a group of a half-dozen or so may be observed. But this is likely to be a family yet unbroken—the two parents and the offspring of that year, that will hunt together. Frequently a lone wolf may be seen, depending entirely upon his own resources and exertions for his next meal. As these animals, when out in the open at night, are always in motion and move rapidly, their frequent howlings make their number seem greater than it really is. Thus a few wolves scattered near and far within hearing distance will lead an inexperienced man to believe that the country is "alive with wolves." But sometimes these pirates hunt in packs and even in relays, and succeed in pulling down animals as large as a steer. The chase may be started by a group gathered for a conference, or it may be by a lone wolf who has been joined by other stragglers as he and his prospective victim have come up to them. A lusty steer once detached from the herd and put on the run by these voracious creatures was doomed. They would kill him, just as their kind killed big buffalo bulls under similar circumstances—by winding him and then attacking him on the haunches and flanks and dragging him down.

However, the gray wolves in the western stock country long have made a specialty of the destruction of colts and of young cattle of the calf and yearling grades, but nowadays, when their number is much reduced and their opportunities also are greatly abridged, they are not doing a large business iin this line. In former times when the calves began to appear in the spring, the wolves industriously prowled around the herds, as they had waited upon those of the buffalos, watching for a chance to grab a calf separated from its mother for the moment. It was no difficult matter for two or three lobos to pull down a yearling, or even an animal several months older. Often when hard pressed in winter, these wolves prowled close around the ranch-houses at night, looking for a calf or a sheep or a colt to satisfy the cravings of their empty stomachs.

They appeared to have an especial fondness for colts, which were harder to get than calves. The horse herd frequently became straggled, but if a mare and her foal on the outskirts of the band were attacked, they would run at their best speed toward the others, which soon bunched up with the colts in the midst of the mass. The wolves, not deeming it prudent to attack the body, would withdraw and wait for another opportunity. As a common thing, the full-grown horses were not attacked. Some of the horses would assume the offensive when menaced, and if there were any stallions among them, these were very likely to do so.

After the buffalos had been destroyed, range stock became the main dependence of the wolves of the plains, and the ravages of the latter among cattle and sheep were so great that organized campaigns were made against them. The range States and Territories took a hand in the crusade by offering bounties for wolf-scalps, and stockmen's Associations joined in putting a price on the heads of the outlaws; the bounties ranging from $2.00 to $10.00 per scalp. This led to the development of a class of professional wolf-hunters, or "wolfers," as they were commonly called, some of whom are still in the business; and to the expenditure of large sums of money. This also led to the development of a new kind of range stock industry—that of rearing wolves for the bounties. An enterprising man, by capturing and corralling young wolves in some out-of-the-way place, could be doing fairly well within a few years from the increase of his pack. While this business never attained any large proportions it went far enough to cause public outcry to be made against it and its demands upon public treasuries.

But the stockmen themselves have done most of the work of destroying the gray wolves in our western country. The young and therefore inexperienced animals have been poisoned and trapped by thousands. Cowboys let no chance to shoot a wolf pass unheeded. Ranchmen brought in and kept packs of large and powerful hounds for the sole purpose of running down and killing wolves—a kind of hunting that was about as exciting as any that ever occurred on the ranges. In the littering season these hounds were used to hunt out wolf-dens and kill the young, as well as the parents.

So the war upon the lobo went on along these lines and is still relentlessly followed, though the gray wolf yet is far from being extinct in the western stock country.

In the northern country, especially across in the Dominion, the gray wolf has occasionally bred with the dog, the offspring being a morose and untrustworthy creature; and this also has happened on our own side of the line, though the dog usually manifests extreme hostility to the wolf and an eagerness to attack him regardless of probable consequences, should the wild creature stand and fight. Of an instance of this crossing between the two species in Dakota, that came within his personal knowledge, Mr. Roosevelt, in his "Hunting Trips of a Ranchman," relates the following:

"On another neighboring ranch there is a most ill-favored hybrid whose mother was a Newfoundland and whose father was a large wolf. It is stoutly built, with erect ears, pointed muzzle, rather short head, short, bushy tail, and of a brindled color; funnily enough it looks more like a hyena than like either of its parents. It is familiar with people, and a good cattle dog, but rather treacherous; it both barks and howls. The parent wolf carried on a long courtship with the Newfoundland. He came around the ranch, regularly and boldly, every night, and she would at once go out to him. In the daylight he would lie hid in the bushes at some little distance. Once or twice his hiding-place was discovered, and the men would amuse themselves by setting the Newfoundland on him. She would make at him with great apparent ferocity; but when they were a good way from the men he would turn round and wait for her and they would go romping off together, not to be seen again for several hours."

A Coyote Family.

Lobo's cousin, the coyote, has not to so great an extent provoked the spirit of vengeance, and therefore is much more numerous at present than its large relative. But it also is an outlaw, with a price of from $1.00 to $2.00 on its head. Except for the difference in size, the coyote being about one-third smaller, the two animals look much alike, so far as general appearance goes. The coyote never was and never will be dangerous to man in the least, and its depredations among live stock have been confined in the main to sheep, it being very fond of spring lamb. But occasionally a few coyotes have joined forces and turned their attention to calves. However, they depend chiefly upon prairie-dogs, ground-squirrels, sage grouse, and rabbits. In times past they have been known to kill small deer and antelopes, but these were exceptional achievements.

In color, coyotes vary from a yellowish gray in the southern and southwestern parts of the West to a pepper-and-salt gray in the central and the northern sections. The species ranges from southern Mexico far into the Canadian Dominion. The animals "den" in almost any sort of place that comes handy—in holes in a hillside, or in a cut bank of a ravine, or in a hollow log, if they can find one; and bear, usually in May, litters of from four to seven puppies. Their cry is quite different from that of lobo, being a half bark and half howl, or a dog-like yelping at a high pitch; their specific name, *latrans*, "barking," having been given them because of their dog-like cry.

Characteristic Attitude of the Prairie Dog.
(From Merriam's "Prairie Dog of the Great Plains.")

The coyote continues to be numerous, even in the fairly-well settled parts of the plains country, and does a great deal of night prowling around farm and ranch-houses, looking for young pigs, lambs, and sheep, chickens, and so forth. When a man appears in view the coyote has but one thought—that of running as fast as he is able, and he is a good runner. In a general way, though he is made a target at every opportunity, his insignificance protects him from many of the consequences of the war of extermination that is being waged against his large and more disreputable relative.

Bears have done no great harm to western stockmen compared with the work of wolves, and scarcely any to those on the open plains. The bear has little use for the monotonous plains, but since stock-raising was extended into the mountain valleys and "parks," Bruin has helped himself every once in a while to a sheep, or to a calf, or a heifer, and sometimes to a full-grown steer, or even to a bull, who is supposed always to be a professional fighter. At close quarters a large bear will make short work of a bull and shorter of a steer; the difficulty for him is to get at close quarters. The bear has committed more depredations among cattle and sheep—as a rule he exempts horses—in the northern country than in any other section, but all told, his maraudings have not been very serious matters to stockmen.

The mountain lion has not so favorable a record. It has killed much young stock, though it has cut no large figure in the totals of losses by western stockmen. Like the bear, it sees little that is attractive in a wide open country, such as the plains. In the rough, hilly sections of the northern ranges it has wrought some havoc. Usually it would lie in wait for the younger cattle when they came to drink, and, having decided upon which should be its victim, would leap upon it and fasten its teeth in the throat of the unsuspecting creature. Sometimes it attacked and killed a full-grown cow or steer. For silence and stealth and patience, the mountain lion has no superior in the entire cat tribe, but it is in mortal fear of man, and will always either hide or run from him. In the southern country the lions appear to have wandered farther out into the open country in search of prey among live stock. When a cowboy discovered one he took after him on his pony—the little horse enjoying the race as much as did his rider—and soon had a rope fast to some part of the panic-stricken cat's body. The spitting, hissing cat then was dragged to death by the little cow-horse that seemed to enjoy this part of the proceedings as much as he had enjoyed the chase. However, the lions have withdrawn far into the mountain recesses, where, as they are outlaws, too, their number is fast diminishing, and their depredations upon stock are next to inconsiderable.

The prairie-dog has caused no end of trouble to range stockmen, and has been at it since the first range herd put in an appearance. This has not been due to the dog's size, strength, ferocity, or carnivorous propensity, but to the entrance to his burrow and to the quantity of grass his great number eats out by the roots.

In the first place, he is no dog at all, but a frisky, sociable, good-natured little rodent, with a body somewhat larger than that of a fox-squirrel and smaller than that of a cotton-tail rabbit. He has the head of a squirrel, short legs, and a curious little tail that apparently is of no use to him whatever. His cry is a sort of clacking, feeble bark, and, as the pioneers of the plains took more notice of this bark than they did of the character of the animal, they called him a "prairie-dog." "Prairie-squirrel" would have been better.

Entrance to a Prairie Dog's Burrow.

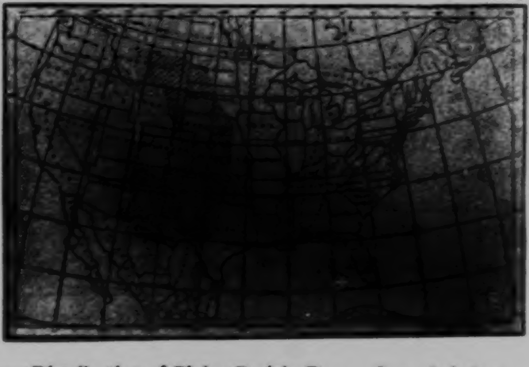
The prairie-dog's dwelling is down in the earth, and the surface-mouth of the shaft that leads to it is a round hole about four inches in diameter. This hole is the crater in a miniature representation of the cone of a volcano; a rather flattened representation, for, while the height of the cone varies within the limits of from eight to twelve inches, its diameter may be as much as three or four feet. The purpose of the cone or mound is to keep the water of a heavy rainfall from entering and flooding the burrow, and in this we have good evidence that the prairie-dog understands his business.

But consider the consequences of a galloping cow-horse with a man on his back, dropping his foot into one of these holes! Down goes the horse with a broken leg, and also down goes the rider, perhaps to break his neck. Cowboys have had their necks broken by such mishaps as this, to say nothing of broken legs, arms, and ribs. Consider also what was likely to happen from these holes when a herd of cattle went stampeding over the plains! If the crazed creatures ran into a prairie-dog "town," some of them were sure to stick a foot into a hole and go down with a broken leg. From these accidents there was no help, and a rifle bullet through the heads of the suffering animals was merciful. The wolves or the coyotes got the carcases.

No one knows the extent of the trouble made for range stockmen by the prairie-dog's burrow, not only in the loss of stock in the manner suggested above, but in the far more important matter of the loss of human life. There are no statistics of these tragedies that continually occurred year after year from the Rio Grande all the way northward to the edge of the national boundary line.

As shown by the accompanying map, the range of the prairie-dog is over a broad belt from a point in Mexico considerably south of El Paso, Texas, northward practically to our northern boundary line. This great extent of country has been occupied for years by stockmen, but no one can even approximate the total losses of life and property that have occurred over a wide area of the West from holes in the ground made by prairie-dogs.

But this is not the only grievance the western stockmen nave against the prairie-dog. The prairie-dog not only eats a great deal of grass, but also destroys much pasturage. Concerning the quantity of grass consumed by these animals, Dr. C. Hart Merriam, Chief of Division of the United States Biological Survey, in his mono-



Distribution of Plains Prairie Dog. Occupied Area is Marked with Dots.

graph, "The Prairie-Dog of the Great Plains" (1901), says:

"According to the formula for determining the relative quantities of food consumed by animals of different sizes (kindly given me by Prof. W. W. Cooke), 32 prairie-dogs consume as much grass as 1 sheep, and 256 prairie-dogs as much as 1 cow. On this basis the grass annually eaten by these pests in the great Texas colony would support 1,562,500 head of cattle. Hence, it is no wonder that the annual loss from prairie-dogs is said to range from 50 to 75 per cent. of the producing capacity of the land and to aggregate millions of dollars."

Of the great Texas colony referred to by Dr. Merriam in the foregoing, he says in his monograph:

"The prairie-dog is pre-eminently a social animal, living in colonies which vary in extent from a few acres to thousands of square miles, and inhabited by thousands, and in some cases millions, of animals. Colonies 20 to 30 miles in length are not rare, and in Texas one is known which measures about 250 miles one way by 100 to 150 the other, covering an area of about 25,000 square miles. The number of holes in use on each acre varies from a few to upward of a hundred, and probably averages at least twenty-five. * * * In old towns many holes are abandoned, or used only as refuges, so that it is difficult to ascertain how many animals live in a stated number of holes. Another difficulty lies in the varying number of animals in the occupied holes, for in winter and early spring the usual number is two (a pair), while after the birth of the young the number is at least quadrupled, and then decreases with the advance of the season, as the young are killed by enemies. It is certainly a conservative estimate to assume the average number of animals per acre to be 25. On this assumption, the number of prairie-dogs in the great Texas colony must be at least 400,000,000."

There are many colonies scattered over the great range of the prairie-dog, the dimensions of which are to be measured by miles and the inhabitants of which are to be counted by millions.

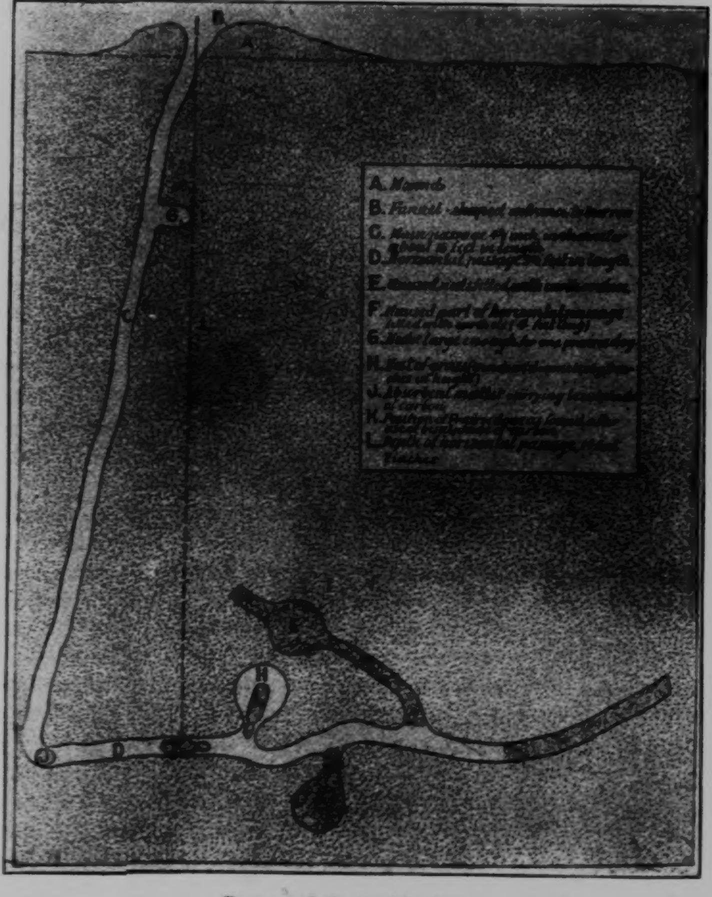
Plainsmen long have asserted that these animals are able to locate their towns away from streams, because they burrow down until they strike water, but Dr. Merriam points out the fact that in some regions they live where the nearest veins of artesian-well water are 1,000 feet below the surface. The truth is that they can live without drinking, the moisture in the herbage they eat being sufficient to supply the greatly modified requirements of their bodies as to moisture.

The same plainsmen used to declare that rattlesnakes and small owls habitually shared the burrow-homes of the prairie-dogs, and from this it became fashionable for writers of western tales for eastern consumption to tell of the strange household that resulted from such a combination of tenants. In vain was it pointed out that the owls and snakes were there in search of their dinners, for which the young puppies made fine material. But in the beliefs of many people the undeserved reputation for so foolishly sharing his home with such dangerous enemies, still clings to the prairie-dog.

In recent years a determined effort to decimate the dog-town population has been made by stockmen and others, by poisoning the animals. The more general method of doing this has been by placing a spoonful of poisoned wheat in the mouth of the burrow, strychnine usually being employed. Another is that of fumigation of destroying the creatures by fumes arising from substances thrown into the burrow. For this purpose bisulphide of carbon is more commonly used. A piece of corncob, a small bunch of rags, or even a clod of earth, saturated with it, is dropped into the burrow, and the fumes soon kill the inmates. But as the dogs usually bring forth four young at a birth, it is evident that this process of reducing their number to a point anywhere within sight of extermination will be a slow one unless it be carried forward very systematically and thoroughly—which has not yet been done.

The burrows are something more than mere holes in the ground. They are quite elaborate underground workings, as will be seen by the accompanying illustration, which represents a careful and complete exploration of a burrow in Kansas, and which also may be accepted as representing a typical burrow of the prairie-dog. The main shaft, which is nearly perpendicular to the main tunnel, is 14 feet 7 inches in depth.

The prairie-dog has several mortal enemies beside man to hold its number in check, the most inveterate of which are the coyote, badger, blackfoot ferret, and the rattlesnake, which is a meaner creature than any of the others. The coyote depends upon sneaking up to his prey, for all of his ways are those of the little sneak. The badger, having scared the dog into his burrow, deliberately, but industriously digs him out with his wonderfully powerful foreclaws—boring down to his victim, which has no possible means of escape. The weasel-like ferret, a relentless and terrible enemy of the prairie-dog, enters the burrow and follows its maker to the last refuge, where a tragedy is inevitable, without harm to the invader. The rattlesnake, like the ferret, glides silently into the hole, his preference being for the young dogs. In parts of Texas the "rattlers" live almost entirely upon young prairie-dogs, and are very destructive to the species.



Burrow of the Prairie Dog.
(From Merriam's "Prairie Dog of the Great Plains.")

A curious thing about the snake and the dog is that each is mortally afraid of the other. The dog is afraid of being eaten by the snake, and the snake is afraid of being entombed by the dog. If the mother of the young dogs, on a return to the home hole, finds that a snake has intruded, she at once sets up a peculiar cry or bark, to which many citizens of the town instantly respond. They gather about the hole, and in a moment all are at work filling it up. The quickness with which they can do this is remarkable. When the hole is filled they butt and pack the dirt in its mouth until it is almost as hard as the ground around it. There is then no chance for an escape of the ravager of the prairie-dog nursery. He is sealed up in his tomb. The snake understands this danger, and is prepared to escape from it on the least warning. A little sand dropped into a hole in which a rattler has entered will bring him out at his best speed with a twist and a whirl, because he is terrified by the belief that the dogs are about to bury him alive. Such fowls of the air as eagles, hawks, and owls enjoy eating prairie-dogs, and eat many of them; and bob-cats, and even mountain-lions, prey upon them whenever they have an opportunity and are hungry. But these cats do not often get into a dog-town nowadays.

In what has been said on the foregoing pages, the reader will have seen that range stockmen have had—and still have—troubles, difficulties, and losses due to causes other than those arising from hard winters, dry summers, low-down markets, overcrowded ranges, and so on. But after all they have had no large reasons to complain of the country because of the animal pests it harbored. While losses due to these have aggregated large, it must be remembered that our range stockmen have been occupying a tremendously large country, and also that terms of "millions" must be used in enumerating the live stock they have had on its pasture-lands.

Denuding the Range.
(*From Hornaday's "American Natural History."*)

We have remarked that the stockmen themselves relatively were in more frequent and more serious danger from pests of the ranges than were the animals they had in their keeping. These pests, that are so much more disposed to harm man than to injure the beasts of his herds and flocks, are the rattlesnake, the skunk, the tarantula, and the centipede.

The western cow-country was from the beginning, and still is, infested, taking it from one end to the other, by several species of rattlesnakes, or "rattlers," as they have been commonly called, and between most of them there is no great difference to the untrained eye. The prairie rattlesnake is most numerous, and is found in nearly every part of the plains region, in length usually from two to three feet, but occasionally longer. The Texas rattlesnake dwells not only in that State, but in most other sections of the southwest. New Mexico has in her assortment of rattlers the dog-faced rattlesnake, which is not much seen outside of that Territory. In the extreme southwest are the tiger and the horned rattlesnakes, while along the Mexican border in some places is the green rattlesnake.

The horned rattler, beside being the smallest of the tribe, is distinguished by having a horn over each eye and by its peculiar mode of motion. Unlike most of the snakes, it moves sidewise when in a hurry, in deep curves, and because of this is called the "side-winder." This and the Texas rattlesnake usually have their coloration bleached down by the strong sunshine to about that of the naked desert, a circumstance due to their environment and not particularly to their specific character.

In general habits the western fraternity of rattlesnakes differs but little among its several kinds. The young are born alive, equipped with fangs and poison, and ready to coil and strike, the number in a litter or brood ranging from eight or nine to fourteen or fifteen—a great plenty. The joints of horn-like material that form the "rattle" are developed out of the skin and dove-tail or nest into each other. When the skin is shed the rattle remains undisturbed. The number of joints in a rattle does not, as is supposed by many people, indicate the snake's age at the rate of one for each year. Frequently, until it reaches maturity, three joint are developed yearly, but after nine or ten joints have appeared, those above that number become broken off by accident or by the violent vibrations that produce the rattling sound; more than ten joints rarely being found on any individual.

The Rattlesnake.

Any number much greater than that in a "specimen" rattle opens the latter to the suspicion of having been artificially lengthened by joining to the originals other joints of suitable size, an operation in which much skill has been employed by fabricators of "curios."

The sound of the rattle varies according to the snake's state of mind at the time it shakes its tail. With a full set of rattle-joints the snake, when it contemplates nothing more than a fair warning, vibrates its tail slowly, and so makes a kind of clicking sound. But when it is excited, which usually also means that it is angry and resentful, the rattler shakes its tail with great rapidity, producing a peculiar "whirring" sound that "means business" and which has been likened to that made by meat frying in a hot pan.

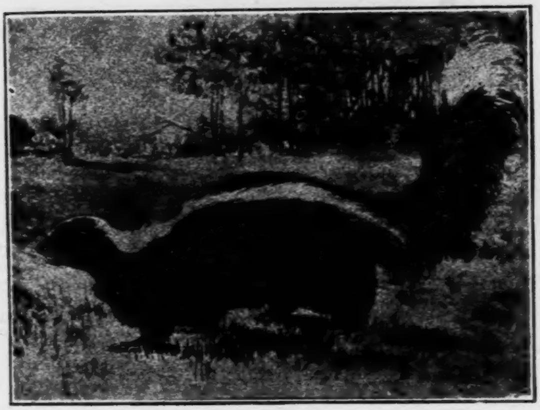
The venom of a rattlesnake is dangerous, and often fatal to man, unless effective remedies are applied quickly. The poison is a thick fluid secreted by two glands situated in the head, just back of the eyes, and must be introduced into the blood in order to do its deadly work. This is accomplished by two long, slightly-curved, slender fangs—teeth that have no other function, and that are of almost needle sharpness at their points. These fangs are traversed by a minute tube from their base to an orifice near the points, and through this channel the venom passes and is injected into the wound. The fangs are not fixed as teeth are, but are hinged to the roof of the mouth by a strong ligament. Normally, they lie back and up against the mouth-roof. For action, they are drawn down by muscles, the impact of biting forcing their upper ends against the poison-gland, or sac, and by this the venom is driven down through the tube and discharged into the wound.

While cowboys seldom went anywhere on foot, and never on foot very far, they were not so much exposed to danger from rattlers as were many other men of the western country; yet in former times there were frequent instances of rattler-bites among them and occasional deaths. Cattle, sheep, and horses rarely suffered much from attacks by these reptiles, but the experienced cow-pony almost invariably showed extreme dislike for them. He would snort and jump when he saw one, and was quick to see them, too, though their coloration, except for a short time after skin-shedding, was much like that of their surroundings, and often made detection somewhat difficult.

The cowboy hated the rattler with what appeared to be a concentration of all of mankind's animosity to serpents since the time of Mother Eve. His hand always was against it, but it was his revolver that usually was employed actually to do the work of destruction, though the quirt was sometimes used with good effect. Not to stop to kill a rattler implied that the cowboy had an exceptionally pressing demand upon his time and attention. It was "no trick" for the average cowboy to smash the spine of a rattler with a bullet from his revolver while seated upon his pony, and, as this kept him "in practice," the snake was his favorite target in the ordinary course of daily affairs. Sometimes the rattler shared the cover and warmth of the cowboy's blankets at night, but in nearly every instance of this kind the snake had become chilled and his chill had made him sluggish and dull-witted, and therefore, also less dangerous. But toward morning, when the snake had become warmed up and more alert from the heat of the man's body, and when it was nearly getting-up time anyway, a sudden movement of the sleeping man that rudely disturbed the snake and alarmed it, might cause it to drive its fangs into the nearest part of the sleeper's body. While such an experience may not fairly be said to have been common, every section of the range had a story about one of its cowboys having been bitten by a rattler under such circumstances.

The common skunk, or "pole-cat," that ranges all the way from Hudson Bay to Guatemala, and that is about the size of the domestic cat, aside from its bushy tail, was much dreaded by all of the men of the plains, and the cowboys feared it far more than they did bears, mountain-lions, wolves, or any other creatures that had red blood in their veins. The probability of death from hydrophobia resulting from the bite of the animal, kept them constantly on the lookout for and in fear of the skunk. Yet in spite of all precautions, many cowboys died a horrible death in consequence of having been bitten while asleep by these offensive creatures. Nocturnal in its habits, and praying largely on insects, small reptiles, and small animals, the skunk in other parts of our country is a harmless animal, except for its offensive odor, which comes from a fluid ejected from two glands situated near the base of its tail. This constitutes its defense against all enemies, and it can throw the fluid several feet. The odor arising from this fluid is so foul and stifling that neither man nor beast can endure it long at close quarters.

But in all the plateau region south of about the fortieth parallel of latitude the skunk developed a peculiar carnivorous propensity that made it greatly dreaded; and while this propensity does not appear to have prevailed in the northern range country, knowledge of it made the pole-cat feared as much by cowboys and other stockmen in Montana as by those in Texas and New Mexico.

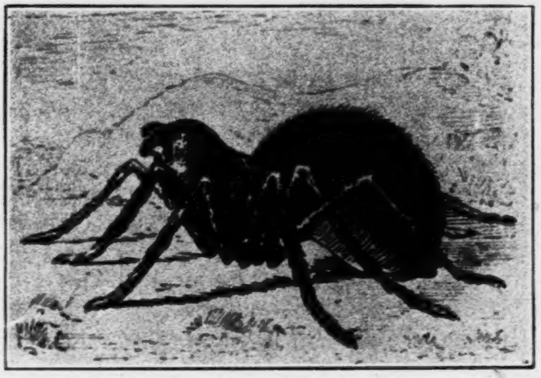


The Skunk.
(From Ingersoll's "Wild Neighbors.")

Finding its way at night into a camp, or where men are sleeping on the ground, the southern skunk is likely to proceed without any hesitation to bite and gnaw the face or hands or feet of the sleepers; and its appetite for human flesh and blood, once aroused, it will seek to return to its repast, even if driven away. The venom left in the wounds has, in many cases, produced hydrophobia and frightful death, though the animal itself may have shown not the slightest symptoms of rabies. One regiment of the United States Army—and not a full one, at that—stationed in Arizona, lost thirteen men in one year by death from hydrophobia in consequence of skunk-bites. Some years ago the skunk was numerous in Texas, the Indian Territory, Kansas, Colorado, Utah, Arizona, and New Mexico, but in late times the demand for its pelt has largely diminished its number in a majority of these divisions.

Colonel R. I. Dodge, in his "Plains of the Great West," relates a case of these skunk-bites which, happily, did not prove fatal. It occurred in far-western Texas. A soldier and his comrade were sleeping in a common or A tent. The soldier dreamed that he was being eaten up by some animal, but a sort of nightmare prevented his moving. After some time, however, the pain and horror together woke him up, to find a skunk eating his hand. With a cry and a sudden effort, he threw the animal from him. It struck the other side of the tent and fell upon the other man, who, recognizing the intruder, rushed out of the tent. The bitten man, who had heard of the surely fatal result of skunk-bite, was so paralyzed by fear and horror that he made no effort to get up, and seeing the skunk coming toward him, again buried himself in the blankets. The skunk walked all over him, apparently seeking for an opening, and finding none began to scratch the blankets as if trying to dig out his victim. The mental condition of this poor fellow can better be imagined than described. In the meantime the other man had loosened the tent pins and lifted up one side of the tent, letting in the moonlight; then pelting the animal with sticks from a distance, at last frightened it so that it ran off into the deep, dark bank of the river. This skunk emitted no odor, and was undoubtedly simply hungry and not rabid. The man came to Colonel Dodge in the morning with his hand bound up, and asked if there was any cure for a skunk-bite. The Colonel's heart sunk within him, but he affected to make light of the matter, and examined the wound. The whole ball of the right thumb was torn, lacerated, and gnawed in a fearful manner. Colonel Dodge had no caustics or other means of cauterization at hand, and so long a time had elapsed that he thought they would have done more harm mentally than good physically. So he had the wound carefully and thoroughly washed with Castile soap, cut off the protuberant pieces of mangled flesh, and, binding it up, kept on a simple water-dressing till the wound healed, which was in about ten days. The man was with Colonel Dodge for more than a year after this, but never experienced any ill effects, except temporary pain from the wound. The Colonel says that this was the only non-fatal case of this character which he knew in that region.

The tarantula, which inhabits the southern and southwestern parts of the range country, has, as a pest, been far more an imaginative quantity than a reality, but even yet is much dreaded by most of the people living there. In former times the southern cowboys generally believed that its "bite" was fatal, though it does not appear that any of them ever personally knew of a death resulting from such a cause. As a matter of fact the bite of this spider is not dangerous, though the creature is big and repulsive enough to inspire fear and apprehension.



The Tarantula.

There are several species of this insect, each which is commonly known by the name, tarantula, which primarily was derived from Taras, the name of a city in southern Italy, where one species has long been abundant, as it has in various other places and parts in southern Europe. In medieval times the bite of this spider was supposed to produce "tarantism." This was a contagious sympathetic affection, outwardly somewhat resembling chorea, or "St. Vitus' dance." Its victims manifested an inordinate desire for dancing, attributing it to a belief that they had been bitten by the tarantula. This then became characteristically a contagious impulse, reaching and affecting great numbers with a dancing mania that periodically was widely prevalent in southern Europe for several centuries.

But the European tarantula was no more responsible for the delusion than was the Texas species for the old-time southern cowboy's fondness for the dance-houses in the wild and woolly cowtowns.

The American group of these insects, all of which are large and hairy, belong to the tribe that also is known as "bird-spiders," and are found not only in the southwestern United States, but in Mexico, Central America, and South America. They possess large, hard, polished fangs which move vertically and are thus used to pin down their prey. Their bite may be quite painful and troublesome, but it is not really dangerous and never fatal, so far as accurate records go.

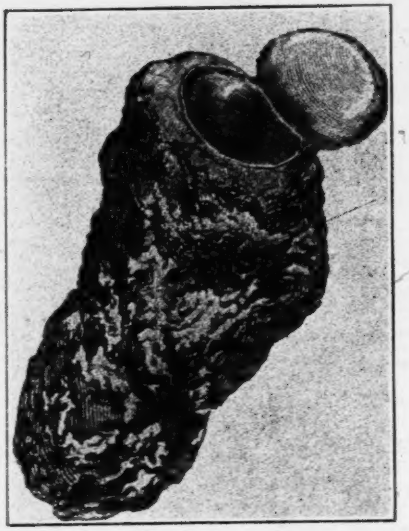
The tarantula of the southwest feeds upon insects and other small creatures. It is nocturnal in its habits, usually remaining in retirement in its nest during the day. The nest is a remarkable structure, or perhaps more properly remarkable for its furnishing and for the mechanism by which it is closed. Commonly, it is a hole in the ground. This is given a thick and silky lining of spider-web upon every part, and is closed or covered with a valve-like hinged door, the under side of which also is lined with the silky material. When the door is down it is next to impossible for the eye of man to detect its presence. Sometimes the tarantula has its nest under the roofs of buildings or in similar places, where it is given the form of a long silken tube that is closed with the valve-like door which, in such cases, is made entirely of the silky material.

Cowboys often amused themselves, when they had a little leisure and where tarantulas could be captured, by getting up a fight between two of the hairy spider-monsters. After some preliminary provoking the creatures would go at each other like bull dogs and fight until one or the other was laid out. Sometimes the combat was fatal to both, for they tore off each others' legs and mutilated each other's bodies without mercy. A tarantula that had proved to be a victorious warrior was kept and petted like a winning prize-fighter, and was matched, with money at stake, against other champions.

Sweet and Knox, writing nearly a quarter of a century ago, were among the first students of the tarantula and its ways of life who defended it against its defamers and who sought to clear its reputation from calumny. Of it they say in their book, "On a Mexican Mustang Through Texas":

"On a piece of dead wood close by was a hairy-looking object. It was about the size of a walnut. Its legs, eight in number, radiating from the body, were also covered with short hair or spikes. It looked like a spider from Brobdingnag. Its body and legs would cover a space about as large as the palm of a man's hand, and it was altogether as ugly a looking insect as I had ever seen. This was the 'dreaded tarantula'—an insect that has been more slandered than any other living thing; an unobtrusive spider that attends to its own business, and that seems to have no desire to push itself into notice; an insect of surprising taste and ingenuity in the matter of architecture and household adornment. Its nest is the most ingenious of all ingenious things. It is a subterranean abode, about the size of a coffee-cup, lined with some material as fine and glossy as white satin. At the surface of the ground is a small opening, into which fits a door made of sand and gravel glued together with some gummy fluid, and lined with the same satin material as the nest. The door opens and shuts on hinges made of many strands of a silken sort of thread.

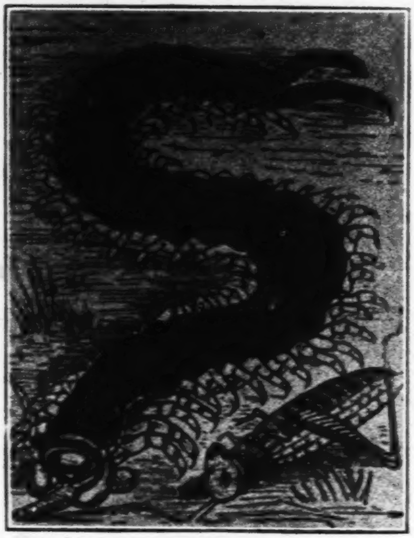
"When the tarantula goes out into the world, closing the door, and pocketing the key to his night-latch, the sharpest eye could not detect the nest or its entrance, for the outside of the door is formed of sand and gravel that looks exactly like the surrounding soil. I had long been misled regarding the habits of the tarantula. I had labored under the impression that it was a vagabond, a tramp among insects, roaming about in quest of a loose trouser-leg to crawl up, when the fact is, that it has a fixed place of abode—fixed, so to speak, in the highest style of insect art. The tarantula is a spider of fixed business habits, not speculative or rash by any means, but rather cautious and conservative. He never attacks an insect larger than himself, unless it happens to be dead. When the sun goes down he saunters out, and leisurely proceeds to prey on dissipated ants and belated tumble bugs, that have heedlessly wandered from the paternal domicile. His nocturnal raids, and the fact that he sleeps all day, have prejudiced against him those hoary-headed people who take a wicked pleasure in cornering their sons and clerks, and hurling busy-bee and early-worm proverbs at them before breakfast. But the prejudices of these old fogies influence the tarantula but little; for those who know him best—the frontier Indian, the horse-thief, and the Mexican raider—have learned to appreciate him, and show their appreciation of his wisdom by adopting his mode of life, considering it worthy of imitation. The most perfect have their faults, however; and the tarantula is no exception. When insulted or injured in any way—sat down upon, for instance—he will bite the first soft place he can find, exuding a vicious substance said to be as fatal as the poison of a rattlesnake or the effects of frontier whiskey. I think this is another slander, for I have never met a man who was fatally bitten by a tarantula. 'Tarantula juice' is a favorite appellation in Texas for the worst kind of whiskey, and probably on the principle that 'a hair of the dog,' etc., whiskey is the only antidote successfully used in cases of tarantula bite. I have heard it stated—I give the statement for



A Tarantula's Nest.
(*From Thayer's "Marvels of the New West."*)

what it is worth, probably about five cents on the dollar—that an old Indian who lived on the Neuces loved the antidote so much that he carried around a tame tarantula, made it convenient to get bitten close to a 'grocery,' exhibited the tarantula as evidence of what had happened, and howled around until he was gratuitously irrigated with whiskey by the humane storekeeper."

In about the same parts of the United States in which the tarantula lives and carries on its business, is found the centipede. While the tarrantula is repulsive in appearance, the centipede is loathesome, exciting the most extreme feelings of aversion. Our southern stockmen always have shuddered when they saw a centipede near them—and with good reason. If this abhorrent creature truly represented its name, it would have a hundred feet (*centum*, hundred; *pe(d)s*, foot), but the centipede of the southwestern United States has not quite so many feet as that. In the southern part of our country, centipedes are now more frequently seen preserved in bottles of alcohol standing on "show-cases" in drug stores (the average druggist has queer tastes as to things beautiful) than alive in their native haunts.



The Centipede.

There are many varieties of these many-legged worm-like creatures scattered over the warm zones of the earth, the group to which our centipede belongs being the most abominable. The centipede in structure is much like a primitive insect. It consists of a series of segments, each of which bears one pair of legs, the form of the body being flattened. The head, covered by a flat shield, carries a pair of attennæ, a pair of small but strong mandibles, and a pair of under jaws. The poison-bearing glands are located in the head, the venom being emitted through a pair of modified legs. It is said that the sharp hook or claw of each foot of a centipede leaves a poisoned wound like the sting of a wasp when the creature crawls upon human flesh. If this be so, it is because the feet have upon their surfaces some of the venom discharged from the glands in the head, for the poison is not emitted through the feet of the body. The smaller forms do not very often bite man, and their poison is never fatal, though, it is said, "it makes the bitten party wish he were dead—for a short time, at least," and the wound is likely to develop into an ugly sore. The bite of the large, tropical forms, such as the "giant centipede" of the West Indies, is a serious matter, their venom being highly poisonous, with occasional fatal results.

Centipedes are active and ferocious, fond of dark and damp places, and stay by day under stones and bark, in decaying wood and leaves, or in loose soil. They go in search of food by night, devouring worms and insects, which they are able to pursue with much persistence, guided almost wholly by the sense of touch, for their powers of vision are at the best only poorly developed, barely enabling them to distinguish light from dark. Some appear to be entirely blind, but since they are night prowlers, they seem to get along as well as the others. The only excuse that can be found for the centipede's presence in the world is that it is said to destroy some noxious insects and worms.

It was a common belief among cowboys that the centipede's poison would cause insanity. Mr. Hough, in his "Story of the Cowboy," says he knew of an instance of a cowboy who, having been bitten by a centipede, "really became crazed, although he did not die"; a consequence due perhaps as much to nervous apprehension as to direct affects of the venom.

To some of the creatures that we have included on the foregoing pages among the pests of the western stock-raising country, practical extermination within the limits of the United States seems likely to come within a comparatively brief period of years. The bears and the mountain lions can not last long. They are disappearing fast, and in extensive areas of the mountainous parts of the country where, a few years ago, they were quite common, they are now unknown. Hunted relentlessly, as they are, they will soon be unknown in the narrowing districts in which they are to be found at present, and as their numbers decrease the eagerness to "get one" before all are gone, will increase in about the direct square ratio, just as it was in the case of the buffalos. The extermination of the prairie-dog, while it will be a tedious and expensive task—the dog affords no marketable commodity—may come to pass before any great lapse of time—that is, great in the sense of counting time by decades. But the wolf tribe, lobos, and coyotes have, it would seem, a good chance for a long survival. Should the wearing by human beings of the skins of beasts be continued, the demand for the pelt of the skunk may work his undoing within the present century or thereabouts; and it will be well if it does. But as to the lower creatures to which we have referred—the rattlesnake, the tarrantula, and the centipede, there is no reason for expecting them to pass out within a thousand years—or many thousands, for that matter. The very nature of things, the very character of much of the western country, promises their indefinite perpetuation. There can be no doubt that people in the future, to whom our times will be as remote as those of the oldest known peoples seem to us, will know and look upon the rattlesnake, the tarantula, and the centipede with the same feelings that they arouse in ourselves.

Robert Taylor.

Live-stock raising has ranked with mining as a means of populating the mountain States and Territories. The pioneer live-stock man of the Rocky Mountains can relate stories of hardship and adventure fully as interesting as any ever told in the miner's cabin, and history will not fail to give to the former the credit he deserves. In times of danger from Indians it was often the live-stock man who suffered, and in the long drives through strange regions examples of fortitude and heroism were presented which have scarcely been surpassed in any branch of activity of modern times.

Arriving at the destination, it required years to become firmly settled and prepared to meet the conditions amidst new surroundings. This called for no ordinary endurance and judgment. The men who withstood the test, fully deserve the credit that is accorded to them by those who understand and appreciate the trying circumstances of the early range.

The sheep-raiser was one of the heralds of the approaching day. New Mexico and the Pacific Coast can claim the credit for the introduction of the industry on a large scale in the West, and it was from California that the first herds of any importance in Wyoming were imported. It required a drive of many hundreds of miles through deserts and over mountains to reach the virgin range, but the trip had no terrors for the men who were accustomed to exposure and rough out-door life at all seasons of the year. Trailing a sheep-herd from Northern California even to Central Texas was not an unheard-of event thirty years ago, before the railway and the settlers' fence put an end to the slow-moving procession. Thus has the live-stock business been established.

One of the leaders in the growth of sheep-raising in the Rocky Mountains and adjoining country is Robert Taylor, whose principal headquarters during recent years have been at Abbott, Nebraska. More than thirty years ago Mr. Taylor began ranging sheep in California. In 1880 he established a ranch on the headwaters of Bitter Creek, in Southwestern Wyoming, and few men have been more active than he in introducing pure blood from the best breeding farms of England, Scotland, and America, or in supplying the market with the best grade of mutton. He has sheared as many as 65,000 sheep in a single season from the F. L. Ranch near Casper, Wyoming, and he has run as many as 90,000 sheep in a single year upon the Wyoming ranges. At the same time he has been an extensive breeder and raiser of cattle, horses, and hogs, and he has never been satisfied with an inferior grade.

Mr. Taylor was the first settler to register at the land office from the Bitter Creek Country, Wyoming, and he yet retains the land he entered twenty-four years ago. Starting originally with the Merino, it has been his constant aim to develop the mutton qualities of this breed. In this he has been eminently successful. He has freely expended several fortunes in his extensive breeding experiments, and thousands of rams have been sold from his stations to supply the demands of sheep-owners in different parts of the West. The policy of Mr. Taylor is to keep constantly in the market, leaving nothing but young and strong sheep on the range, and always to be on the alert for improving his herds. For two seasons during the '90's he exported his fat sheep to England, but during recent years he has found a ready market at the Missouri River packing centers, only twenty per cent of the yearly product going to Chicago. The establishment of his headquarters at Abbott, Nebraska, has proven a blessing to the small farmers of that section, as 20,000 or 25,000 sheep and lambs from his own flocks are fattened at this point each winter, and the grain is supplied principally by farmers of the region. A 40,000-acre ranch in Lincoln and Perkins Counties, Nebraska, is devoted to the raising of sheep, cattle, and horses, with corn and small grain as a side issue. Mr. Taylor has for years made it a practice to range cattle and sheep together, and he is a warm advocate of the system. The contraction of the free range led him to study scientifically all phases of breeding as he foresaw that the men who remained in the business would be obliged to reduce their flocks and herds and improve the quality. This has made him one of the best-informed breeders on a large scale in the West.

Robert Taylor's talent as a breeder was inherited from his father, who long held a place as a live-stock raiser and a thorough judge of live stock.

Mr. Taylor was born December 9, 1848, in the south of Scotland, near the Tweed River, where wool manufacturing is a leading industry. His parents intended him for the ministry, or the profession of the law, but as a student at school his interest was mainly attracted to nature and the sciences. He was a leading athlete, and in running, jumping, and wrestling it was seldom that he was defeated.

The grandparents of the young student had come to America, and in 1866 were living in Western Pennsylvania. Led by a spirit of investigation, Mr. Taylor paid a visit to his relatives in America. On his way he stopped for six weeks in Canada, where he took advantage of the opportunity to talk with noted breeders of horses, cattle, and sheep, and note the results of their operations. At Guelph he saw three Shorthorn steers, fattening for the Christmas market of New York City, which weighed from 2,800 to 3,100 pounds each. The Clydesdale horses and Leicester sheep also attracted his attention on account of their fine breeding. Here he learned that the farmers of a neighborhood clubbed together and imported high-class animals from the old countries, establishing a reputation which led to an extensive and profitable business in blooded stock with live-stock breeders of the United States.

Arriving in Pennsylvania, Mr. Taylor spent the winter with his grandparents, and then decided to see more of the country. The close of the Civil War had brought the undeveloped West vividly to notice, and glowing prophecies of fortunes awaiting young men appeared in the newspapers. Thousands of veterans of the war sought homes on the Pacific coast, and Mr. Taylor, twenty years of age, over six feet tall, the picture of health, strength, and energy, started to New York to travel west. His objective point was San Francisco. The trip by wagon on the overland trail was too slow for him, and he went aboard a steamer at New York, crossed the isthmus via the Nicaragua route, and finally landed in San Francisco.

A heavy immigration was surging westward, and the journey was a pleasant diversion to a young man care-free, who was out to see the world and in a mood to take a hand in any frolic that presented. The land trip from Lake Nicaragua to the Pacific coast, a distance of eleven miles, was performed in wagons drawn by ox and mule trains; but Mr. Taylor was so fortunate as to receive an introduction to a broncho, and his first ride on this useful animal was down the mountain slope to the waters of the Pacific.

The first glance at the Alameda Hills, covered with groves of trees and resplendant with acres of flowers, settled the fate of the traveler. and he decided to make California his home. The next fourteen years of his life were passed in the Golden State.

One of his first obligations was to find employment. Ready to turn his hand to any honorable work, he noticed an advertisement in one of the daily papers calling for sheep-shearers. It was at "Doc" Toland's ranch in the Montezuma Hills, forty or fifty miles out of the city. Arriving at the spot, Mr. Taylor was asked:

"Can you shear sheep?"

"I have done so in the old country."

"How many can you shear in a day?"

"Perhaps fifty," was the reply.

He has engaged at six cents a head and board.

The first day he sheared forty sheep, but before the work in the pens closed he was shearing eighty sheep a day, and soon became an expert sheep-shearer. His training in athletics came into good play, and a remarkable constitution bore him through several years of severe exertion.

His next employer was J. H. Glide, now of Sacramento, California, and formerly one of the largest sheep men of the Pacific coast. Farming in winter, sheep-shearing in spring, and baling hay in the summer season, all requiring great bodily exercise, brought on a severe illness which lasted two months, and used up all the available cash Mr. Taylor had gathered together.

Here was a turning point in his career. He came to the conclusion to embark in business on his own account and to do so on borrowed capital. Money was 1½ per cent a month; but the sheep business presented alluring inducements, and the credit of Mr. Taylor enabled him to borrow $1,800, which he promptly invested in 600 ewes. This was his start in the sheep business. He trailed the flock from Oroville to Red Bluff, the head of navigation of the Sacramento River. For three years he acted as his own herdsman, cook, and sheep-shearer, and then he was out of debt, and the owner of 1,200 sheep.

When Mr. Taylor first located in Tehama County there were few neighbors for many miles, and it was an ideal sheep range. His ambition grew with the increase of his flocks, and as the range had begun to be curtailed by the advent of the farmer and vineyardist, desiring a wider field for his operations, in company with a neighboring sheepman, he started a trail-herd for Texas. The first half of the route led over the mountains, through Nevada, Northwestern Utah, and into Wyoming. Mr. Taylor went part of the way with a flock of 3,000 picked ewes, and then returned and disposed of 5,000 three-year-old wethers, which he sold for $1.40 a head. This was in 1880. As early as 1874 he had sold ewes at $3.00 and lambs at $2.00 a head after shearing in the fall. The following year the market broke, and ewes sold at $1.25 a head. Mr. Taylor had foreseen the decline on account of over production, the curtailment of the range by farmers, the outlet to the Territories not yet having been taken advantage of, and he was one of the fortunate sheep-raisers who escaped disaster. It is his observation that the man who depends upon settled conditions from year to year frequently misses it.

Coming by rail in the fall, with rams for his flock, Mr. Taylor found his companion in winter camp on Green River in Southwestern Wyoming. Although the winter of 1880-'81 was regarded as a hard one for that region, and the spring count showed a loss of one-third in their flocks, Mr. Taylor had made up his mind that sheep could be run successfully in Southwestern Wyoming, and he determined to demonstrate this by locating right there. His trail partner followed his example. In the quarter of a century that has since passed Mr. Taylor has never regretted his choice. He came to the conclusion from his early observations in the mountains that Wyoming presented advantages as a live-stock country possessed by few regions of the globe, and the importance the State has attained in the industry has proven the correctness of his judgment.

The Indian and the buffalo, the range cattleman with his stock scattered over hundreds of square miles of territory, and the migratory sheepman with his sheep wagon and flocks, have marked successive epochs in the settlement and development of Wyoming. The time has arrived, however, when the great opportunities for investment of capital are recognized, and Wyoming is assuming the position she deserves. The State has astonishing wealth in coal, metalliferous deposits, oil, lime, and the valleys capable of irrigation are not excelled in richness anywhere in America. Wyoming, on account of the clear, bracing atmosphere, is one of the healthiest localities of the globe. A visitor from any other State at once notices the remarkably healthy appearance of the people, old and young, and live stock reared in this State is not excelled in constitution and frame anywhere.

As an evidence of the last statement Mr. Taylor called attention to the position of Wyoming as a sheep-raising State. It now leads all the Western States and Territories in price per head of its sheep; leads every State in the Union in total value of its sheep and number and value of its lambs, the amount and value of its wool clip, and the average weight of fleece produced. This is accounted for by the climate and the variety of the grasses, also by the quality of the sheep on the Wyoming ranges. While live-stock raising has heretofore occupied the principal attention in the State, the agricultural and mineral resources are now attracting capital, and the movement of settlers into Wyoming is larger than ever before. Upwards of 40,000,000 acres of Government land, including the mountain areas, are available for entry or lease. A marvelous region of mountains, plains, parks, and valleys, Wyoming holds out inducements to the homeseeker or the tourist which are scarcely to be duplicated.

The variety of climate, from the mountains covered with perpetual snow—the sources of great rivers—to the sunlit prairies, was noted by the earliest travelers; and it is the experience of live-stock men that winter storm losses of earlier years may be entirely obviated by reasonable outlay in forage. The annoying rainy spells and continued drizzle of lower altitudes do not occur in the mountain plateaus. The dryness of the air of the tablelands should be kept in mind in considering temperature in these altitudes. The average summer temperature is about 70°, and in winter one may sit in comfort in the flooding sunshine. This glory of sunshine and sparkling dry air will ever distinguish the mountain regions as the home of vigor and health, and the great irrigating projects which are planned by the general Government will make Wyoming one of the most prosperous of the mountain States.

Although not a seeker after political honors, Mr. Taylor served in the Senate of Wyoming from Natrona County during the sessions of 1897 and 1899. Coming from a free-trade country, he started as a Democrat. His conversion to the Republican party is given in his own words:

"The first political literature that attracted my attention," said he, "was in a sheep camp in California. Time hung wearily in the camp, and the only reading I could lay my hands on was Democratic campaign documents sent out at the time of General Grant's second campaign. I read the arguments on the tariff very carefully several times, and after reaching Wyoming I carried a torch in a Democratic procession at Rawlins, celebrating the election of Grover Cleveland. Free trade looks beautiful in theory; but one day, after the excitement of the jollification had passed away, I was out in camp forty miles from Rawlins, when Cleveland's free-wool message reached us. I read the message once, and felt somewhat indignant because the industry in which I was making my living was held up as 'a horrid example of the evils of protection.' I read the message a second time, and got madder. Then I started for the railroad, caught the first freight train for Rawlins, and soon landed in the town. The gathering place of the principal men at that time was a saloon. I invited all the boys to take a drink. 'Gentlemen,' said I, 'I want to make a confession. I have done some foolish things in my life, but today the thing I am most ashamed of—a fact known to you all—is that I carried a torch in the Cleveland procession. I want to say I am ashamed of it, and I want you to understand that I am now a Republican. My first glimpse into American politics was under Democratic auspices, and many of my best friends are Democrats, but hereafter count me a Republican. My policy is that when we 've got a good thing, keep it!' "

The speech was vigorously applauded by the assembled sheepmen, and from that hour Mr. Taylor has been an avowed protectionist. An omnivorous reader, he keeps well informed in world events, and he places the United States at the head of the nations of the world.

The result of his observations is that there is a remedy for every abuse, and in due time the remedy will be found. "The only time I was ever really alarmed," said he, "was when Coxey's Army was marching towards Washington. When that danger was dissipated I came to the conclusion that the good sense of the American people can be depended upon to solve every problem that arises, and that is my fixed conclusion. The greatest problem in the live-stock business is the packers' combination. This combination controls both the buying end and the selling end. In the old countries the little butchers are the buyers, and the danger does not exist. Yet I have no doubt that a way will be found by which the live-stock raiser will receive a due reward for his investment and his labor. The solution has not yet been presented, but it cannot be far off."

Mr. Taylor was the first president of the Rocky Mountain Wool Growers Association. He is an earnest worker in the organizations for the promotion of the industry, and a member of the National Live Stock Association, the National Wool Growers Association, and the Natrona County (Wyoming) Wool Growers' Association. An address which he delivered at the Industrial Convention at Douglas, Wyoming, on "The Best Sheep for Range Purposes," which contained many valuable hints for sheepmen, was copied extensively by the agricultural press of the United States.

His wife, formerly Miss Agnes E. Littlefair, born and reared on the northern border of England, presides over a happy home, brightened by the presence of three daughters and one son.

Mr. Taylor has been a pioneer, and has kept abreast of the changes on the ranges of the North during thirty years past. As a breeder, he has made an important contribution to the permanent welfare of the industry, and by fearless utterance and straightforward dealing, at all times and under all circumstances, he has commanded respect from all whom he has met. He is one of the leaders who has contributed his share toward the permanent establishment of live-stock interests.

* * *

Revolution in the Live Stock Industry on the Range.

A Great Change Within a Few Years.—An Adventure Converted Into a Business.—Fading of the Old-Time Glamour.—Principal Factors in the Revolution.—Complete Change in Character of Range Stock.—Elevation of the Range Beef Steer to a High Plane of Excellence.—Elimination of the Long-horn and Its Kindred.—Characteristic Qualities of the New Stock.—Horns No Longer Conspicuous in Western Cattle Herds.—Introduction of Providential Methods.—Cultivation of Forage.—Milo Maize, Kaffir Corn, and Alfalfa.—Present-Time Cowboy a Hay-Maker Also.—Range Cattle Now Too Valuable to Take Chances.—Systematized Management of Stock Ranches.—Reduction in Number of Men Employed.—Provisions for a More Dependable Water Supply.—Artificial Reservoirs and Ponds.—Introduction of the Beneficent Windmill.—Pioneer User of Windmills on the Plains.—Methods of Making an Earthen Water-Tank.—Leasing Railroad and State Lands.—Some Characteristic Recent Examples.—Rental Value of Such Lands.—Great Change in Character of Ranch Buildings and in Their Surroundings.—Improvement in Transportation Facilities.—Development of the "Feeding Industry."—Shifting of the Center of the Range Cattle Business.—Effect of the Panic of 1893 on Western Stockmen.—Unprecedented Conditions Range Stockmen Have Encountered.—The Probabilities of the Future.

In none of the large industries or occupations of men has there ever been so great a change, so swift and complete a revolution in methods and in results within so brief a period, as that which has come to pass in the live stock industry in the West since 1885. Indeed, the change practically was effected inside of ten or twelve years, and the industry put upon the orderly and substantial basis on which it now continues to be conducted.

What had been an adventure was converted into a business. The rearing of live stock on the western plains and in the mountain valleys ceased to be a reckless "chancing" of things, ceased to be a speculation, and became a careful, systematic commercial enterprise, seeking regular and reasonable returns for its output of beef and mutton, which were made to be of the highest grade. The typical owner of great herds of cattle no longer was distinguished by a broad-brimmed hat, no longer stuffed his trousers into the tops of high boots, no longer wore accouterments suggestive of wildness and woolliness, but presented the appearance of a conservative, unostentatious man of business. He was not "out of place," but at home and at his ease wherever he might be, whether in the great market-cities or at his ranch—very much a man of the business world.

The glamour of the old times faded away as the more practical conditions of the new asserted themselves. The long marches over the trail from the open range to the shipping-station came to an end; the old-style cowboy, who erstwhile upon occasion had ridden up and down the street of a cow-town shooting his "gun" and yelling his presence, passed into history; and the round-up that once had gathered in cattle from land enough to make a State was reduced to a ranch episode, limited in its operations to pastures enclosed by wire fences, and became as it still is, almost as commonplace as the evening home-coming of the cows on a farm.

In such changes as these, the live stock industry in the West lost many of its picturesque features and aspects, and therefore became less fruitful for the purposes of the romancer. But they placed it upon a much higher plane and made it a permanent business.

The principal factors in working these radical changes were improved stock, provident management, and individual control of more or less of the land upon which each stockman operated, accompanied by the use of fences. The greater part of these factors, which also implied the other two, was the improvement in general character of the range stock, both cattle and sheep; though the greater improvement was made in cattle. The actual beginning of this transition had occurred before 1885, though the first attempt to introduce better blood into the rough range stock were made in Texas more than ten years earlier. However, all that had been done along this line before the collapse of the great boom was, in a large measure, experimental, and many cattlemen considered the experiments useless, believing that as the old-style range cattle became modified by the blood of the high-grade breeds, they would correspondingly be disqualified physically to withstand the hardships of life in the western country. Hence, the expectations that were entertained with respect to results from crossing the buffalo with domestic cattle; a matter we have considered on pages further back in this volume.

Therefore, all that had been done before 1885 in changing the quality of range cattle had made no great, general impression upon the character of the live stock. But during the ensuing ten years a large item in the expense account of every ranchman whose operations were of considerable magnitude, represented his outlay for high-grade and registered bulls. High-bred breeding stock was brought into the range country in numbers that aggregated thousands of head and that, it is no exaggeration to say, cost hundreds of thousands of dollars. These bulls came not only from the stock farms of the eastern States, but from England, Scotland, and continental Europe. Quality was bred into the herds, and the range beef steer was raised to a high plane of excellence.

View in the Fair Grounds at Bozeman, Montana.

The best and therefore the high-priced beef lies along the animal's back, and any one can understand that a broad-backed steer that has utilized its food in increasing its aggregate of sirloin and porterhouse parts, is far more valuable than the narrow-backed, slab-sided animal, perhaps of nearly the same gross weight, but which has utilized most of its food in the production of tallow. The western cattlemen saw this, and began to produce, with the same amount of food, beeves that yielded the high-priced steaks, worth from 15 to 25 cents a pound in a normal retail market, instead of tallow and medium or low grade meats, worth whatever the buyer could be persuaded to pay for them.

So the process of improving and upbuilding the range herds through the introduction of better stock and by selective breeding was undertaken and soon became general from southern Texas to northern Montana. The Long-horn and all its kindred were rapidly eliminated. These slender, long-legged, narrow-faced, slabby, nervous animals that could run like deer, that were subject to panic whenever they saw a man not on horseback, and that had horns reaching far out from their heads, within a few years practically became extinct creatures. Their places became more than filled by broad-backed, thick-loined, wide-shouldered cattle that in many instances yielded the largest possible amount of beef from the least possible amount of food, that topped the market, and that were as easy to manage as so many barn-yard heifers; the short-horned and the no-horned, the red-bodied and white-faced, and the black and the mixed-hued, the short-legged and the medium-legged—but all fine beefers.

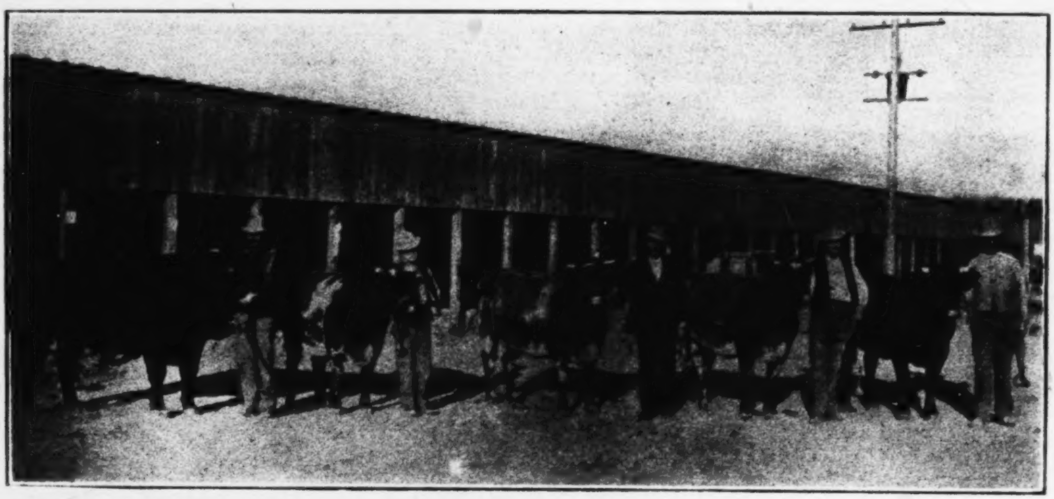
A great revolution thus was worked in the general character of the range cattle through the efforts of western stockmen to improve their stock and to build up their herds anew. With some ranchmen the Shorthorns became the favorites; with others, the white-faced Herefords; with others, the cross of the Shorthorn and Hereford; while still others favored the Scotch breeds; but from either's herds, by 1895 there would have been little difficulty in picking out prize-winners at county fairs back in the old agricultural States. On some range land where, ten or fifteen years before, horns were the most conspicuous features of the cattle that grazed upon it, there were herds without a horn to be seen on any beast in the collection. The old belief that a range steer must have plenty of horn to keep him from becoming something else had been abandoned. Long-horns went out of fashion forever, and if one of the old Texan steers of the early '70's now could reappear, he would be a curiosity to many of the younger of the present generation of western cattlemen, for these men are acquainted only with big, broad-bodied amiable creatures, short-horned or hornless, whose very forms proclaim beef and nothing else. This great change in the character of western stock contributed largely toward making the United States the foremost country of the earth in the production of beef cattle and toward making it a fact that about one-fourth of all the cattle in the world are now in our country.

Instead of depending entirely upon having their cattle and sheep "rustle" a living from the pastures the twelve-month through, under any and all conditions, the stockmen now were providing a reserve supply of forage with which to tide over hard "spells of weather" in winter. The pastures still remain the chief dependence, and ordinarily the stock gets along very well upon them, though a rather large acreage must be allowed to each animal. In the southern parts of the country a great deal of milo maize, a tall and thrifty grass-like plant, and much Kaffir corn, or African millet, are grown for winter stock-food; these plants thriving very well on the dry uplands. Large quantities of alfalfa hay, of which two or three crops usually are harvested each season, are produced, and even the sorghum plant is somewhat extensively grown for forage. Farther north our common Indian corn is one of the ranch crops, and while the grain usually does not mature well, the plant as a whole makes very good "fodder." Much natural hay is made from grasses growing in river bottoms; mowing machines usually being parts of the equipment of the ranch outfit. All of these provisions are things to which the stockmen of the open range period gave no consideration; indeed, to a large majority of them a suggestion to grow forage crops for their stock would have seemed an absurdity. It is hard to tell what would have been the effect on an old-time cowboy had he been introduced to a mowing machine and told that he was to take the contrivance and go out and make hay with it. Doubtless his amazement and indignation would have paralyzed him; but that is what many of his successors in the stock business in the West now recognize as a legitimate part of their work.

When there is a shortage or a failure of these forage crops, cattlemen do not hesitate to spend money liberally for other winter feed that has to be brought in from the outside; for the general run of range cattle has been developed to a high degree, and the loss of an animal means a great deal more than it did in free-grass times.

Ranch management in all its details has been systematized, and the number of men required for the care of a given number of cattle much reduced. On most of the larger establishments there is now one man to 800 or 1,000 head of cattle, whereas in former times three men would probably have been required. For this change the general introduction of wire fencing has been largely responsible, but the improved character of the cattle has also been an important factor. For an example of what has been accomplished in this direction, we will take the case of a large ranch in western Texas which, though it has since been divided into smaller holdings, a few years ago had on it 125,000 head of cattle and about 1,600 horses. Yet the total number of men employed on the ranch for all purposes under the modern management was 125. This ranch was districted into seven parts, each of which had its ranch-house and water supply. The losses of cattle by this large establishment, from all causes through a period of several years, ranged from 2 to 5 per cent. annually—a very low death rate compared with losses that were common on the range thirty years ago and that were then taken as unavoidable, matter-of-course affairs of the business.

The provident methods that came in with this revolution in the stock-raising business in the West, included provisions for a more dependable water supply. This was a matter that affected the southern country more than the central and northern, but was of great importance in all. Instead of trusting entirely to the streams and natural "water-holes," as had been done formerly, draws were converted into reservoirs and streams were held by dams until they made great ponds. But above all things else, the windmill has served to solve the problem of water-supply on the western stock ranches. While its presence is not an absolute guarantee against a lack of water for man and beast to drink in seasons of extreme drouth, it has been, as it still is, truly a "boon" to the range stockman. The windmill for pumping water was in use elsewhere years before it appeared on the stock ranges. Incredulity, together with its cost and the expense of boring deep holes in the ground, delayed its introduction into the western stock country; on the one hand, the stockmen did not believe there was water anywhere within reach beneath the surface, and on the other hand there was the relatively heavy expense of the outfit and of sinking the wells, and also the willingness of the earlier-time stockmen to take chances and trust to luck. But since 1885 an immense amount of money has been spent by western stock-raisers in boring wells and providing windmills for them. Everywhere in the vast plateau country these mills are now to be seen rising above the group of buildings that constitute ranch headquarters, and also here and there far from any other structures, but at places convenient for the watering of stock.



Ready for the Show Ring.

As the windmill has done so much for the range stockmen, a bit of the history of its introduction into the semi-arid country will not be out of place here. Major W. V. Johnson, of Lubbock County, Texas, claims to have been the pioneer in sinking a drilled well exclusively for the purpose of supplying water to range cattle, his work having been done early in the '80's on his Dixie Ranch in the county mentioned. Of this he says in a pamphlet published in Texas a few years ago:

"I suppose I was the first man to put down a drilled well and the third to put down a well of any kind on the plains, and the first to establish a system of windmills. In 1881 the Quaker Colony, which located in Escado that year, dug a well to the first stratum of water. There were but few people in the colony at that time, and they had but few stock, and a little water would supply all their demands. Previous to this, the buffalo-hunters had dug a well somewhere in that part of the country, and it was then in use. When I decided to establish the Dixie Ranch and erect a system of windmills, the latter was wholly an experiment. The contract specified that there should be six wells, and that they should be 600 feet deep if necessary. All water used by the men while working on the wells had to be hauled a distance of forty miles. You can probably imagine my enthusiasm when an abundance of water was struck at a depth of 120 feet. The next serious problem was how to provide storage for the water as it was pumped by the windmills. The fact that the soil was of an open, porous character, and the further fact that the lakes on the plains, which were filled with water when there was an abundance of rain, but soon afterward dried up, caused me to reason that it would be useless to build earthern reservoirs, and it was not practicable to build wooden or metal tanks of sufficient capacity to accommodate my needs. So I decided to make big excavations and line them with cement; the sand for which purpose had to be hauled nearly 100 miles. While building these cement-lined reservoirs I accidentally discovered the proper method of building an earthern reservoir on the plains, and that has since been universally adopted. This is to build a circular dam, let the windmill pump water into this basin, and then to turn cattle into it until the ground has been well trampled. Owing to the peculiar character of the soil, you will then have a tank that will hold water like a jug."

If the water from the well be in fair supply, the contents of such tanks can be kept in reasonably good condition through the hot months by providing the tank with a small outlet opposite the inlet, so as to cause a circulation and discharge sufficient to prevent corrupt stagnation.

Land tenures in the range country are not in a satisfactory condition, but in spite of many obstacles, million of dollars have been expended since 1885 in acquiring by purchase, lease, or otherwise, tracts of grazing-land and in fencing them. The opportunities for doing this were better in Texas than in any other of the range States and Territories. As early as 1890, one cattle company in Texas had secured title to one body of land containing 3,000,000 acres, or nearly the area of the State of Connecticut; and had the land all under fence. But in more recent years such large establishments have been disposing of their land, the general tendency being toward ranches of moderate size. Still there are yet many outfits that utilize more than a million acres each.

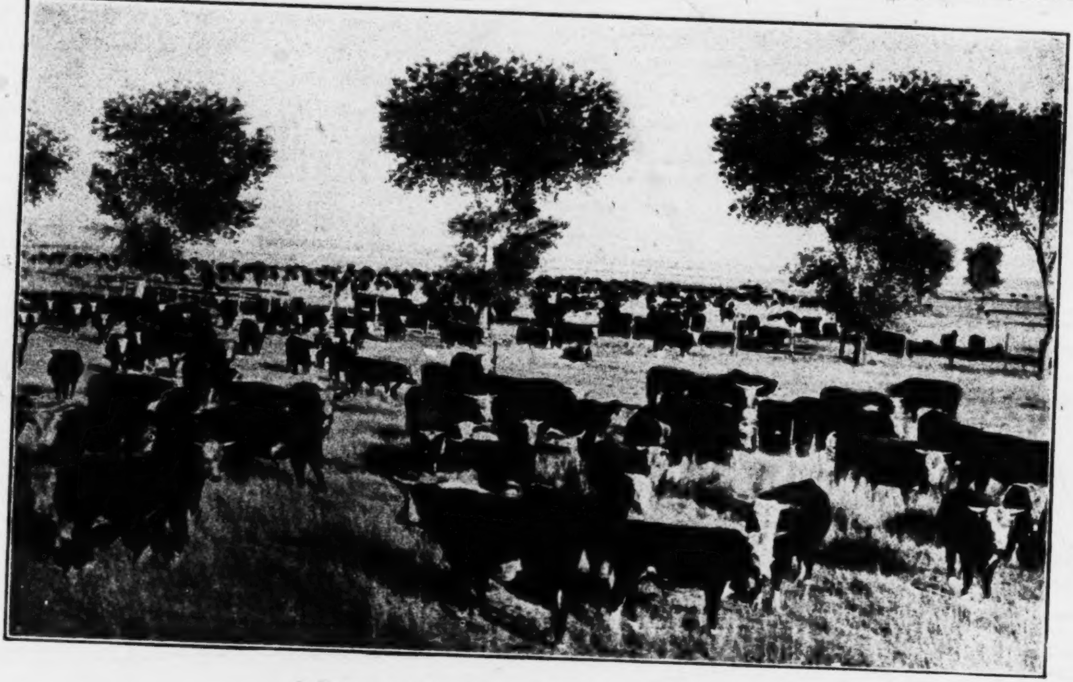
By the leasing of railroad lands many live stock men gained control of the alternate sections of Federal land within the general body. An example of the extent to which this can sometimes be done is at hand in a transaction that was consummated in Wyoming a short time previous to this writing. Two individuals, according to the account, "closed a deal whereby they are enabled to control over 1,000,000 acres of winter grazing-lands in Sweetwater and Uinta Counties. They have leased from the Union Pacific Railway Company for a period of one year, with the privilege of renewal, 600,000 acres lying between Leroy and Green River, and this lease will give them control of the alternate sections of Government land, or an additional 600,000 acres."

During very recent years the Federal Government began a crusade against stockmen who had fenced and were occupying public land. The objection was not to the occupation, but to the fences. Many stockmen in the central plains region were arrested and fined, beside being put to considerable other expense, for the offense, and also ordered to remove their fences and leave the land open. Many fences have been taken down, and the movement is still in progress in various parts of the country.

An idea of the basis upon which a range State leases its public land perhaps can be gained from a late transaction of the Colorado "Land Board," which granted a lease to a cattle company on a tract of 10,000 acres in Weld County at 5 cents per acre per annum. This was a renewal, the company having held the land for some years past at about the same rental.

Should the reader be unfamiliar with land values in certain parts of the range country, an annual rental of 5 cents per acre may seem "nothing at all." But it is high in comparison with some other prices that are paid. The Union Pacific Railway Company within the last two or three years has rented large tracts of "sheep land" at 2 cents per acre per annum; this, of course, giving the lessee control of the alternate sections of Federal land, upon the presumption that the intermediate Government sections have not been "taken up."

Among the great changes wrought in the transformation from range to ranch by the new system of live stock production, the improvement in ranch buildings and their surroundings became conspicuous before many years had passed. Dug-outs, shacks, and ramshackle houses of logs were part and parcel of the old era and of its ways. They belonged to the formative period and were in keeping with the general rough conditions that prevailed in the wild country. Here and there some of them still linger as relics of times that are no more. But as the new order of things displaced the old, these reminders of frontier days began to pass out, and in their stead substantial buildings, the very character and appearance of which bespeak permanency and settled habits, have arisen. This feature of the revolution continued until convenience, comfort, even luxury, have become characteristic of the typical ranch-house. At the present time the headquarters of a large and prosperous establishment consists of a group of painted and shaded buildings. The main house may be mansion-like; the others are for the various uses of the working forces. Near by are sheds and corrals and stacks of forage; and a kitchen garden receives the attention its importance deserves. The headquarters of such a ranch presents from a distance the appearance of a small settlement. On all ranches of much size the change from the old to the new has been the same in kind if not in degree. The influence of these changes upon the working forces has been marked. Man is very much a creature of his surroundings. Life on a typical western stock ranch goes on nowadays much after the fashion of that on a large and well managed farm, and is widely different from the old, rough-and-tumble ways of the times of the open range.


A Representative Cattle Herd of the Southwest.

Since the inauguration of this revolution in the production of beef cattle in the West there has been a great improvement in the facilities for getting the fat stock to market. This is not the task it was of old. More and more railroads have penetrated into the very heart of the western stock country, dividing and sub-dividing the territory. While railroad accommodations for live stock freight have not yet reached the limit of practical development, they are far in advance of what they were in the early days. So, also, in the facilities for feeding and watering in transit and for taking care of the animals in the yards at the great market centers.

Along with the change in the affairs of the ranch there has been a notable development in the allied business of "finishing" cattle on corn-farms—the feeding industry. This dates far back in the history of the range stock business, though in the earlier times it was not very largely taken into account. But in late years it has been absorbing great numbers of range cattle, and makes the corn crop an important factor in the calculations of the western cattleman. The one output of the cattle ranch is beef cattle. The products of the creamery do not interest the ranch cattleman in a business way, though cream, milk, and butter are not strangers at ranch headquarters, as they used to be. The ranchman is raising beef cattle and not milch cows. In his herd he has many steers that are up to the "prime" standard of condition as to flesh and fat. These he sends directly to the market to be converted into beef. He has others that once would have been considered good beef stock, but which he would hold over now were there no other great outlet for them. The farmers in the "corn belt" have a bountiful crop maturing, for which they see a price of 25 or 30 cents a bushel. They can do better by putting their corn into beef—perhaps getting from 40 to 50 cents for it in that form. They turn to the western and southern cattle ranches for a supply of "feeders," pack corn into them through the winter, and sell them in the spring. These feeders generally are of the grade which the ranchman considers not yet ready for the slaughter-houses, but he turns them over to the corn-farmers at a good profit as they stand. If the corn crop be "short" or a "failure" the farmer can do as well, if not better, by marketing it as grain instead of in the form of beef, and therefore the ranch cattleman has a direct interest in the outcome of the corn crop. Of course the farmer, like every other business man, takes some chances and does not always realize his expectations; but taken year by year this business of finishing range cattle on corn has been a profitable, as well as a large, one in recent times.

About ten years ago, the center of the range cattle industry had shifted from the South to the North, and Montana and Wyoming were sending out hordes of beef cattle. Since then, the center has shifted back southward, a movement due to the enormous increase of sheep-raising in the northern country. In Montana, Wyoming, and Idaho this industry has had a wonderful development in recent years, and by many observers is said to be overshadowing that of cattle-raising. In number of animals the sheep in these States far exceed that of cattle, being in Montana about 5 to 1, in Wyoming about 6 to 1, and in Idaho about 9 to 1. But it is to be remembered that it takes several range sheep to equal in value that of a range beef animal. According to the latest report (at the time of this writing) of the Department of Agriculture, the average value per head of Montana range sheep and cattle was $2.31 and $19.42, respectively; the corresponding figures for Wyoming were $2.58 and $19.60; and for Idaho $2.21 and $17.97. However, these figures impress one as representing average valuations unduly low for cattle.

The rehabilitation of the live stock industry in the West encountered the panic of 1893 when about midway in its progress, but concerning this we shall not trespass upon the reader's attention. In common with every other industry, business, and occupation, the live stock industry suffered from the collapse; but, broadly speaking, not so severely as some other lines of business, although the the shrinkage in values gave prices for cattle an emaciated appearance, which was accompanied by a withering of the demand for beef. Still the shock relatively was not nearly so disastrous as that of 1873.

The occupation, settlement, and development of the Great West is a romance in the history of the advance of civilization, and among the "characters" that figure in it, none play a more useful part than that taken by the stockman. In an immense empire of wild country he was the first to utilize the resources of the soil. The fur-traders cared nothing for these. They were not builders, but destroyers, who moved on as they depopulated district after district of the kind of animals whose pelts had high market values. To subdue the wilderness was no part of their business. Other frontiersmen were equally indifferent to such considerations. Whatever might have been the value of their services, they lived in the present, and were not producers. The range stockman was frontiersman and producer at the same time, dividing his attention between caring for his cattle and fighting the harsh forces of the wild country into which he pushed farther and farther, year by year.

From the beginning of his career he has had to adjust himself to conditions and situations that confronted him, in dealing with which he had no precedents to follow. Before his time, men had not undertaken a pursuit, proverbial in history as pre-eminently a peaceful one, in a wild country infested by cruelly hostile native people. The range stockman did this, and within his own resources had to meet and overcome the conditions he encountered. Men had not engaged in an occupation in which large money values were involved, the products of which must go to distant markets, without having some existing means of getting the products to a market. The range stockman met this condition by inventing the cattle trail and devising a system under which great herds could successfully be moved long distances through a wild and open country. As he reared his cattle far out in this wild land, he had also to devise a system of controlling his stock and keeping it together. For this, as for the principal other things he had to do, there were no precedents. Soon after having met and mastered conditions due to the wild character of the country, far away in which he kept his herds and flocks, he was confronted by a new and entirely different situation. He felt obliged to make a complete change in the character of the stock he was raising—a revolutionary change. Improvement of the quality of live stock animals had been going on for years elsewhere in the world, but its progress had been very deliberate, step by step. But the western stockman was obliged to make the change quickly. True, he did not have to develop high grades of animals through which to inaugurate it, but his task, nevertheless, was a large one. The remarkable extent to which he has accomplished this task is known of all men familiar with the present character and quality of range live stock.

The business of the western stockmen in the future will continue, as within recent years and as now, to be conducted on strictly business principles. It will, however, eventually be on a basis even more stable than it is at present, as the questions concerning the disposition of the public lands approach a final solution. That the area of land of which we still think and speak as "the range"—that is, land that is uncultivated and used only as pasture in its natural condition—will be much further diminished, is certain; and that there will yet be another readjustment of the live stock business in the West on some of its lines, also is certain. Many more men will engage in stock raising, under still further systematized methods, which will include an enlargement of the present practice of growing forage and of rearing high-bred stock. The requirements of the fast-increasing population of our country for meat food, and the demands of markets abroad, assure a continued growth of the industry. Moreover, as the older States become still more densely peopled, the land in those States will be used for more intensive farming. The tendency will be to pass stock raising on to the West—the plateau West—and to make that section of our country the great producer of beef and mutton for the people of the Nation and of a surplus to be sent to feed millions of people of other lands.

Andrew J. Snider.

Fifty years represents immense strides in the growth of the West. Fifty years ago Westport, now a part of Kansas City, stood upon the border of civilization. Omaha and St. Joseph were outfitting points for the immense and imperfectly known area which stretched for 1,500 miles to the sun-lit waters of the Pacific, and Kansas City consisted of a warehouse and a few rude log cabins, under the shelter of the bluffs at the great bend of the Missouri River. Independence was one of the thriving entrepôts, and caravans of trappers, freighters, traders, hunters, gold-seekers, and nondescript adventurers from the four quarters of the earth, gathered at Independence and prepared for the long plunge into the limitless plains. Could the meetings and partings, the assemblages of the weather-beaten frontiersmen, many of them accompanied by their wives and families, and the exciting scenes of those early border days, be truthfully pictured on the written page, the result would be a volume rivaling in interest the descriptions of the beginnings of American life in New England and on the Hudson, or the scenes of the time of Christ, as depicted by the genius of the celebrated author of "Ben Hur."

There are men living who were eye-witnesses of the throngs that gathered at the frontier posts and participated in the adventurous existence on the plains and in the mountains, which for many years attracted the hardiest spirits of America and developed a race that has never been surpassed and seldom equaled, in endurance, fortitude, and ability to meet every emergency; men who hesitated not to embark on the long and tiresome journey over the Santa Fé Trail, requiring from three to six months' time and involving risk from exposure to perils of which the present generation has little conception. These men were personally acquainted with Kit Carson, Colonel Bent, and Lucien Maxwell, and grasped the hand of John C. Frémont, Thomas H. Benton, and builders of empire who have long since passed away.

Among these pioneers was Andrew Jackson Snider, long an honored resident of Kansas City, and one of the most successful cattlemen that ever followed the trail. Mr. Snider came to Kansas City very early in the '50s. He was for years a gold prospector in the Rocky Mountains, and earlier in his western experience carried the mail for the United States Government over the Santa Fé Trail, from Independence to Santa Fé and return, a total journey of 1,700 miles. Mr. Snider finally settled permanently in Kansas City, and his large experience in the cattle range of Oklahoma Territory, where he sold from his ranches as many as 30,000 cattle in a year, made his name known throughout the length and breadth of the cattle region. As a live-stock commission man, Mr. Snider proved as successful as in other ventures. Fourteen years ago he began retiring from active participation in business affairs, and at the age of seventy-one years the veteran was called to his reward in a sphere where the vicissitudes of this life are unknown.

Mr. Snider was born on a farm in Fairfield County, Ohio, March 3, 1833. A family of six children, two members of whom—John S. and Henry are still living—was reared on the Ohio farm. Limited opportunities of attending school at Lancaster, the county seat, were available. Phil. Sheridan, afterwards celebrated in the Civil War, was a playmate of the boys of the Snider family at Lancaster. In those days farm boys were expected to make themselves thoroughly useful, and at sixteen years of age Andrew was a strapping youth with a good share of experience on the farm and a willingness to work, which always accompanied him through life. He accepted an invitation of a neighbor to drive stock to the Eastern market, then at Albany and New York. As railroad facilities had not developed to the transportation of live stock, the trip across the mountains was made on foot. This was the first view of the great world for the farmer boy, and when he returned home he had established a reputation among the neighbors for intelligence, application, and ability, which opened the way for a trip around the world. A mule-buyer of Ohio, desiring to ship a cargo of mules to India, asked young Snider whether he would be willing to undertake the journey.

"Nothing could please me more," was the prompt reply.

A contract was soon completed, and the boy of eighteen started on a voyage of twelve months, whose objective point was Singapore. The trip was performed in a sailing vessel, and at the close of the year the youthful trader proudly walked into his old home, having successfully accomplished the mission, making a handsome profit for himself and his employer. A young man who could thus discharge a large responsbility is practically assured of a successful future.

Shortly after arriving at the age of twenty-one, Mr. Snider decided to seek his fortune in the West. The Mexican war and the discovery of gold in California had attracted wide attention to the newly-opened region, and thousands of the sturdiest young men of the East were looking with longing eyes toward the Missouri River. Mr. Snider went to Independence, and after making several trips to Santa Fé as mail messenger he settled at Leavenworth, and established himself as a building contractor. The old stone fort which stood there until a few years ago was built under his charge.

In 1855 he was united in marriage to Miss Hannah C. Berry, of Platte County, Missouri. Two sons were born of the union—Andrew J. and Chester Allyn, the former of whom died in November, 1887, at the age of thirty-two years. The death of Andrew J. Snider was the ultimate result of ill health, caused by hazing at the United States Military Academy, at West Point. He was a cadet at the military school, but was obliged to retire at the end of two years from failing health. Through action of the War Department the practice of hazing has since that time been entirely abolished. Andrew J. Snider, Jr., was one of the most promising young men Missouri has known, and his untimely death was the only great grief his father ever knew.

When the news of the Pikes Peak gold discovery reached the Missouri River, Mr. Snider was a young man of twenty-five years, active, in the vigor of abundant health, and ambitious to win a fortune for his little family. He joined one of the first prospecting parties organized at the river, started for the mountains, and for five years he lived in the mining regions, wooing the fickle goddess. He visited the struggling settlement of Denver, the districts of Clear Creek, where gold was first discovered in paying quantities; climbed the rugged mountain trails to the marvelous parks two miles above the level of the sea; and participated eagerly in the trials and dangers of the pioneer gold-hunters. He was among the early arrivals at Fairplay, on border of South Park, one of the most attractive spots of the globe; washed the yellow metal out of the sands of Buckskin Gulch; joined in the rush to Breckinridge and California Gulch, the latter of which will ever be associated with the name of H. A. W. Tabor and the millions which poured into his coffers, on account of a grubstake amounting to $27.50. Mr. Snider finally returned to Denver, where he became interested in the management of public affairs, and held the principal offices of the new town and county. In 1861 he was joined by his family, and two years later he moved to Virginia City, Montana, then the capital of the Territory. Virginia City was at the time, one of the liveliest mining camps the West has ever known, and reports of gold discoveries attracted to the city many of the most desperate characters of the continent. Governor H. Clay Smith recognized in Mr. Snider a man for the occasion, and he appointed the former Sheriff of Arapahoe County, Colorado, as brigadier-general of the Territory of Montana. General Snider proved a terror to evil-doers, and through the vigorous measures instituted by himself and other lovers of law and order, the Territory was gradually cleared of the horde of desperadoes that had come upon it.

In 1869 Mr. Snider decided upon another change of base, as his sons were growing older, and he desired to secure for them better educational advantages than he had enjoyed himself. He started down the Missouri River in a steamer from Fort Benton, proceeding as far as New Orleans. His intention was to become a cotton-planter, but conditions were not as favorable as represented, and after traveling for several months Mr. Snider located in Kansas City. There he was attracted to the cattle business, and his career as a cattleman began. In 1873 he formed a partnership in the commission business with George R. Barse, and for six years the firm conducted operations on a highly successful scale. In 1879 the partnership was, by mutual consent, dissolved, as both of the heads of the firm desired to embark their sons in the business. At the close of a few years Mr. Snider disposed of his commission business to James H. Campbell and engaged exclusively in ranching.

As a member of the Cherokee Strip Live Stock Association and as treasurer of the organization, Mr. Snider was a leader on the range during a highly interesting period. Major A. Drumm was associated with him for seventeen years in the range industry, in charge of the live stock, while Mr. Snider attended to the marketing in the city.

In 1901 Mr. Snider retired from active participation in the cattle business. For years he spent the winters in the mild climate of the South, but when at his home, his greatest pleasure was to meet his old friends and acquaintances, and live over again the days of his youth and early manhood. Mr. Snider was a fine story-teller, and having been a participant in numberless stirring adventures, his themes were inexhaustible. He was kindly in manner, liberal in his beneficences, and he made it a rule of his life never to speak ill of others. Although reared in a rough school, his natural kindness of heart ever asserted itself, and his life was controlled by the highest principles of honesty. The word of Andrew J. Snider was recognized to be as good as his bond. He was a thirty-second degree Mason, but for half a century, his life was devoted to action rather than to cultivation of social opportunities. He was known among his associates and among live-stock men of the West as a born leader, a true friend, and a citizen of whom all upright men could justly be proud.

Chester Allyn Snider.

The changed conditions of the last twenty-five years in the West have produced a new class of men, who are now assuming the reins in large business enterprises. Among these men of a younger generation is Chester Allyn Snider, Son of Andrew J. Snider, and leading member of the widely-known Kansas City commission firm of the Evans-Snider-Buel Company. Mr. Snider was born in Platte County, Missouri, August 9, 1860, and is now, at the age of forty-four years, one of the best-equipped men in the entire live stock commission business. The early part of his life was spent in Colorado and Montana, where he came into contact with the manners and customs of the new mining camps, at a time when great excitement prevailed over gold discoveries and thousands of gold prospectors eagerly sought after the yellow metal.

Since he was twelve years of age Mr. Snider has resided in Kansas City. He graduated from the public High School of Kansas City, in 1878, at the age of 18, and spent two years studying special subjects at Bethany College, West Virginia. He then entered the ranch business on the Canadian River in the Panhandle of Texas, in company with his brother, Andrew J. After a year's experience the young partners disposed of their holdings to Underwood, Clark & Company, clearing $150,000 in the transaction. Mr. Snider remained at home until 1885, when he started on an extensive trip to Europe requiring thirteen months, in the course of which he visited all the principal points of interest on the continent. This trip was largely educational, and Mr. Snider considers the time well spent, as nothing so broadens the mind as travel, especially when it is accompanied by trained observation.

The only brother of Mr. Snider, Andrew J., died in 1887 at the age of thirty-two years. He was one of the most promising young men that the live-stock industry has known, and his death caused regret that many years will not obliterate.

In 1899 Mr. Snider assumed the place of Colonel R. D. Hunter in the firm of Hunter, Evans & Company, which is now the Evans-Snider-Buell Company. It has a capital stock of $200,000, although transacting a business yearly amounting to millions of dollars. Mr. Snider has had general charge of the business of the company since its organization. Two years ago, however, he began to turn his attention also to other affairs, as he is a many-sided man, and I. T. Pryor is the active manager in many of the affairs of the company.

Mr. Snider has been twice married. His first wife was Miss Lillie C. Hyatt, daughter of W. W. Hyatt, of Kansas City. He was married to Miss Hyatt August 23, 1882. Mrs. Snider died on Thanksgiving Day, 1883. One daughter, Lillie Hyatt Snider, now nineteen years of age, is the result of the union.

On December 27, 1888, Mr. Snider was married to Miss Olive Olga Oglesby, the accomplished daughter of Governor Richard James Oglesby, of Illinois, for seventeen years Governor of his State and for six years United States Senator. The wedding took place in the gubernatorial mansion at Springfield, and was one of the notable society events of the period. A daughter, Kathryn Oglesby Snider, was born in May, 1891. The home of Mr. and Mrs. Snider is one of the most elegant in Kansas City, and is adorned with works from the leading art centers of America and Europe.

Mr. Snider is a member of the prominent clubs of Kansas City; among them the Commercial Club, the Country Club, the Hunt and Polo Club, and he and his wife are pronounced lovers and liberal patrons of music and art. He was one of the original promoters of the Kansas City Symphony Orchestra, of which John Behr is director, now one of the greatest musical organizations of the country. He was formerly a director of the National Bank of Commerce, the Union Avenue Bank of Commerce, and for five years was a member of the board of directors of the Kansas City Live Stock Exchange, declining further election on account of other affairs. He was one of the founders of the Fidelity Trust Company, and a year ago he became prominently interested in the Bolen-Darnell Coal Company, one of the principal coal companies of the Missouri Valley.

Mr. Snider is a good shot, loves hunting and out-of-door life, and is a consistent advocate of killing no more game than can be conveniently used.

A man of fine physical proportions, handsome and expressive countenance, geniality of manner that invites approach, and alert intelligence upon all subjects that are marks of the modern gentleman, Mr. Snider may justly be regarded as the typical business man of the twentieth century. He represents a generation that has grown up possessing every advantage of wealth and practical experience. Although born under auspices which in many instances fail to develop the sturdy character necessary for successful contact with the world, Mr. Snider has ever been controlled by a serious view of the responsibilities of life, and he passed the breakers of early manhood safely. He may almost be classed as a pioneer of Colorado, as his parents located in Denver in 1861, when we was only two years of age. The trip to Denver was made in a stage coach. The next movement of the family was to Virginia City, Montana, the location of one of the richest gold finds ever recorded in the Rocky Mountains. Seventy-five millions of dollars were washed out of the alluvial deposits of Alder Gulch, and mining is in progress in the region to-day. Mr. Snider remembers when a lad, that the miners permitted him to search through the sluices and keep any gold nugget he might find. He wears on his watch-chain, as a memento, a yellow nugget which he took as a boy from the sluice-box at Virginia City. When he left the camp with his father and mother for the "States" he carried with him $1,300 in gold, the gift of the free-hearted miners.

Mr. Snider is outspoken in his sentiments, liberal in his ideas, and never intolerant toward others. "I ascribe success," said he, "principally to observance of the Golden Rule, to honesty, straightforwardness, and attending to my own business. My motto is, 'With malice toward none and charity for all.' I belong to the Church of This World, and that is what my Church preaches, and it is a pretty good doctrine to live up to. That general principle will win in any line of business. Some men lay claim to virtues they do not possess; but it is better in the long run to be frank, as a rogue is generally found out. A man should never make a promise he does not intend to keep. My father followed the correct principle through life, and he never regretted it. A man can be honest and reliable and succeed. I have a colored man who has been my butler for fifteen years, and he is as honest, faithful, and trustworthy as any man living. There is an old saying, 'There are honest Injuns.' "

For twenty-five years Mr. Snider has kept his hand on the business pulse of the live-stock movement, and has noted the extension of the railway facilities, the improvements in the handling of stock, and the progress made by the packing industry. He recognizes there would never have been any cattle business of importance without the assistance of the packing-houses. The export business, according to his view, will be one of the great movements of the future, and the principal development will be in that direction.

In earlier ages of the world the only avenues for ambitious men to write their names on the pages of history was through the pursuit of politics or war. Owing to the spread of the fundamental principles of human brotherhood between nations and individuals, the mental and physical force formerly expended in the conduct of war, is now being directed in channels of business. This induces men of superior talent to enter the business field, and they come to the front in control of large affairs; so that to-day a man who directs a great business establishment with all its varied interests, outranks, in the estimation of many thinking people, the general of an army.

To this class belongs Chester Allyn Snider.

A Retrospect and a Tribute.

Subdivisions of the History of the Live Stock Industry.—The Many Ramifications.—Accumulations of Knowledge of Stock Raising in Ancient Times.—Broad Scope of PROSE AND POETRY OF THE LIVE STOCK INDUSTRY.—Historical Details Incorporated Into Biographies.—Value of Biography.—The Late Charles F. Martin, Secretary of the National Live Stock Association.—Sketch of His Life.—Commemoration of Mr. Martin's Character and Services, by John W. Springer.

In the preparation of the series of historical narratives contained in this volume—which is the first of the three that constitute the completed work—it was the design to have each of the parts as nearly a story within itself as was practicable; and also to have each deal as fully with its subject as the limitations of a book, even of one so large as this, would permit. An earnest and diligent effort has been made to assemble with accuracy in each division of the series historical and other facts of importance, and to present these facts in such a manner as to make the work of practical interest.

The history of this classic occupation of men has many ramifications. These run into and through almost every movement that has made for the advancement of mankind, and in this respect fairly may be compared with the nerve-system of the human body. Part of it is written in the skies, with stars taking the places of letters and words; another part stands out plainly and clearly in the spiritual beliefs that have quickened the imagination of men and that have raised them so far above all other animate beings; still another is found in our language, that wonderful medium by which we can convey to each other our most intricate thoughts. Its history everywhere is a part of the history of explorations, of discoveries, of wars, of conquests, of settlements, of subjugation of wildernesses, of developments of new regions of the earth, of social organization, of the rise and expansion of organized governments—in short, there is little that man has done in which some ramification of the history of the live stock industry does not appear.

Several of the earlier historical accounts in this volume deal with the ancient history of this oldest of men's orderly and regular occupations, and in these we have endeavored to bring before the reader some undoubtable evidence of the commanding character of the influence it has exerted over mankind and upon the progress of civilization, as well as of the immense remoteness in antiquity, of the time when this influence began to be exercised. We have also brought to the reader's attention many facts bearing upon stock-raising among ancient peoples—among men who have been dust for thousands of years. In these we have seen how old, how very old, are certain of the practices and customs that still are in vogue among our stockmen. From this account the reader, whether he be a stockman or not, most probably will derive new ideas, broader conceptions, than any he had ever before entertained of the historical dignity and significance of the hoary vocation of stock-raising.

After having related the circumstances under which our live stock animals were brought into the New World, into that part of the earth in which their remote progenitors dwelt in far-off geological ages, and after having given some consideration to the evolutionary history of the animals themselves and to their character, habits, and traits, the trend of this series of historical stories soon led us into the Great West of our country; into the plainsland that equals in area the larger part of Europe, and in which the live stock industry has had a development remarkable not only for its great magnitude, but for the circumstances and conditions under which it there had its beginning and was extended. In other parts of our country stock-raising, with but few exceptions, always has been associated with agriculture, and therefore only a part of the business of men taking their living from the soil, often only an incident. On the plainsland of the West it became a distinct occupation, separate from farming, a calling that stood off by itself, and partly because of its isolation and partly because of its unique methods, took on a character entirely unlike that of stock-raising in every other section of the United States.

But a historical work purporting to deal with the live stock industry in so great a country as ours must proceed much further than we have gone in this first volume; and this work does go much further. In the other volumes the reader is told of the achievements of men in assisting Nature in the evolution of more perfect live stock animals; of animals better adapted to their environment and to the purposes they are expected to serve; of what has been done in controlling and eradicating disease among animals; in providing them with the most nourishing food; in transporting them; in putting the flesh of those that are edible into marketable commodities; and so on through a list, the further enumeration of which is unnecessary here, as the reader may study for himself the varied and important contents of these additional volumes.

In its complete form PROSE AND POETRY OF THE LIVE STOCK INDUSTRY covers a field so broad that the capacity of three large volumes is no more than sufficient for its purposes. As the live stock industry is national in its scope, the field covered by this work likewise is national.

Many deeply interesting historical details and incidents identified with the stock-raising industry in the West have been incorporated into the biographies of stockmen that are included in this volume. In these details and incidents we are told of experiences as thrilling, hardships as great, courage as indomitable, and purposes as immutable, as any we find set forth upon the pages of romance. The life-stories of these men are essential parts of the history of the industry in which they engaged in the wild country in the West. History itself really is biography—records of what mankind has done. It can not be anything else. Carlyle says in his *Sartor Resartus* that "biography is by nature the most universally profitable, universally pleasant of all things."

Prominent among those who projected and forwarded the preparation of this work was the late Charles F. Martin, Secretary of the National Live Stock Association from the date of its organization until his death. It was an undertaking very dear to his heart, and the regret of his associates that he could not live to see its consummation is sincere and deep. His knowledge of live stock affairs, not only in the West, but over all the country, was comprehensive, and fortunately he gave of it freely to the purposes of this work before he passed away. He had lived long in the West, and had had practical experience on the range, having been, years ago, both a cowboy and a sheepman. In the broader field, presented by the organization of the National Association, he was given wider opportunities to make use of his abilities, and he neglected none, though he made no selfish use of any. To the interests and welfare of the stockmen of this country, whether those of the farm or those of the range, he was the personification of devotion.

CHARLES F. MARTIN.

Mr. Martin, born in 1860, was a native of Kentucky. When a child, his parents removed to Iowa, and he remained with them in that State until he approached manhood. His first doing for himself was with the railroad contractors who built parts of the Atchison, Topeka & Santa Fé Railway, by whom he was employed as a time-clerk, being with them when the road was constructed into southeastern Colorado. This employment gave him his first sight and knowledge of the Great West, in which he made his home until his death. After a season's work as a cowboy, Mr. Martin, in 1879, engaged in sheep raising in the Apishapa River country in southern Colorado, but in this he did not continue long, for in 1880 he became editor of the *New Mexican Stockman*, a paper established by former United States Senator Stephen W. Dorsey, of Arkansas, in the town of Springer, New Mexico; Dorsey being interested in several cattle ranches in that part of the country. Young Martin had perhaps as strenuous a life as any newspaper man ever led. The town and surrounding country was dominated by a rough element, upon which the youthful editor made war in his paper in behalf of law and order. His life was repeatedly threatened, and upon several occasions he was hunted by ruffians who sought to kill him. Finally the condition of affairs became so bad that a detachment of United States soldiers was sent from Santa Fé to take charge of the town of Springer. Mr. Martin then withdrew from the *Springer Stockman*, and removed to Denver, where, soon afterward, he was appointed the local manager of the Associated Press; a position he filled for eight years. But the seed of consumption in the meantime had become implanted in his body, and failing health due to that disease compelled him to resign the position and incapacitated him for any kind of work for several years. Having retained his old interest in live stock affairs, and his health having improved, Mr. Martin became active in the movement that resulted in the organization of the National Live Stock Association in 1898, with headquarters in Denver. He was elected its Secretary, and at each annual meeting thereafter until his death he was re-elected to the position, the duties of which are many.

But the white plague of our land had not released its hold upon Charlie Martin, and for above a year before his death his army of friends was much concerned for him. His mental energy was out of all proportion to his physical strength, but he persisted in the discharge of his duties until the day of his departure—dying literally in the harness. In the morning of September 21, 1904, he left Denver to go to Casper, Wyoming, on Association business. Before the train had proceeded many miles he had a hemorrhage of the lungs so serious that it became necessary to remove him from the train at Greeley, Colorado. There he lingered with recurring hemorrhages until after nightfall. He was buried at Denver.

Among the many men identified witth the live stock industry in the United States there are few who are more widely and more favorably known than was Charles F. Martin, and it is difficult to understand how any man could be more faithful to what he conceived to be his duty than he. His frail life seemed to be wrapped up in the interests and usefulness of the National Live Stock Association. He thought of nothing else and labored for nothing else; and died while going forth to serve it. The stockmen of the country lost a tried and true friend, their most indefatigable worker, when he ceased to live.

At the eighth annual meeting of the National Live Stock Association, held in Denver in January, 1905, Hon. John W. Springer, a long-time friend of Mr. Martin, delivered the following exquisite tribute to the memory of the Association's late Secretary:

"*My Fellow Stockmen:* The open hand of welcome again has been extended to you by the representatives of this beautiful City of the Plains. After royal greetings at Fort Worth, at Salt Lake City, at Chicago, at Kansas City, and at Portland, you have, like wanderers, come back home. We look into old faces from the Dakotas to the sunny lands of Texas; we mingle our joys with the old boys from Oregon to New Hampshire. Each and all have been thrice welcomed to Denver.

"But upon every stockman of this Union a shadow has fallen, for a prince has been beckoned over the range; and the chair of our late Secretary, Charles F. Martin, stands before us draped in the emblems of mourning—a mute witness to this stern fact.

"While on his way to Casper, Wyoming, to attend a convention of stockmen this faithful servant, engaged in the official discharge of his duties, was stricken, and on September 21, 1904, he laid his burdens down.

"From the morning of our history as a National Association no name other than his was ever suggested for Secretary of this great organization; and verily his works shall live after him. He was ever faithful to his trust, as honest as the needle to the pole, and as jealous of every interest, dear to stockmen of the United States as any man has ever been, either living or dead.

"A flood of recollections overwhelms me as I recall what he accomplished during these many years. I stand in awe of his untiring efforts to build up and to keep things moving. His voice, his pen, his influence, were always for a charge forward, and no man can truthfully say that Charlie Martin ever advised a retreat. His enthusiasm was refreshing. No man can lead today who lacks optimism, enthusiasm, belief in the righteousness of his own convictions. It goes without saying that everybody loved this departed toiler along life's pathway. He was a living exemplification of Dr. Johnson's motto: ' 'T is better to live rich than to die rich.'

"When we think what a load of physical infirmities he carried, how handicapped he was in life's journey, we marvel at his achievements. With health, wealth, and opportunities crowding one another, a man deserves little praise for succeeding. How different with our departed friend with a tottering frame, without money, with few opportunities! Yet, what a record he has left in life's battles! Known from ocean to ocean, he was beloved by both rich and poor.

"His generous heart was bigger than his purse, and yet with his few hard-earned dollars, he was happy as a king. He was an inspiration to me during the seven years I was at the head of the National Live Stock Association. I, too, had my burdens; and as you well know I struggled along to keep alive a member of my own family who fell a victim to this same dread disease, May 22d, last. How they used to speak of their hopes when they met, and bid one another Godspeed in their efforts to get well!"

"My friends, so few of you can understand the sympathy these poor stricken mortals feel for one another. We try to help them, but we come far short of what they need.

"Do you appreciate your health, your home, your means, and your opportunities? If you do not, just remember the afflicted human beings who are struggling to keep in the sunlight; yearning to get a big breath of pure air; pining for the old days of health and happiness.

"Our deceased brother and fellow-worker belonged to the people, to the masses, and loved to live, to labor, and to wait. He learned his lesson out in the fastnesses of New Mexico; out under the stars; close to Nature. This kind of training broadens men and makes them rise to any task, any occasion. His success was the result of hardy training in Nature's school—the range.

"For eight years he had faithfully labored for the upbuilding of the live stock interests of the United States.

"His last letter was written to our beloved President, Theodore Roosevelt, and I was commissioned to deliver it in person. My reception by the President was genuine and hearty, and I earnestly called his attention to the three requests of the stockmen of the Union with an urgent appeal to him to incorporate all our requests into his message to the Congress now in session. He listened to the reading of the letter and to my appeal, in which I said: 'Mr. Roosevelt, this is the last message from our faithful Secretary, who has finished his labors and gone to his reward.' To this the big-hearted, range-educated President responded: 'Mr. Springer, leave this letter with me. I shall not forget the interests of the stockmen of this country.' He kept his word, and all three of our requests were urged upon the attention of Congress in a ringing message, such as our people will never forget.

"It was well said by one of our early statesmen that eternal vigilance is the price of liberty. Our departed Secretary had this motton constantly on his desk, and was a devoted disciple of its injunction.

"His last Christmas token to me, in 1903, was a sweet book, entitled 'Thoughts,' the final quotation marked by him having been written by Charles Kingsley:

"'Yet ere we part, one lesson I can leave you for every day—
Be good—
Do noble things, not dream them all day long—
And so make life, death and that vast forever—
One grand sweet song.'

"We owe him a debt of gratitude, and, I believe, should join in the erection over his grave of a block of solid granite as a fitting memorial of our regard and deep appreciation for what he did for our great industry.

"Sleep on, old friend, and take your well-earned rest within the Gates of Peace at Fairmount Cemetery, where the golden sunbeams stream down from a well-nigh cloudless sky; and where the everlasting peaks of the Rockies are the guardians of all who slumber there. The meadow larks shall sing over your tomb their joyous notes of love, and ten thousand stars shall keep watch at night over your grass-covered bed. We have strewn flowers upon your last resting-place, and now offer a prayer that each and all of us may receive a benediction from our friendship and fellowship with you who have gone on ahead: gone into that eternity beyond mortal sight, but within immortal possibilities.

"My friends, let us go hence determined to round out our lives as conscientiously as did our departed brother, Charles F. Martin."